

**RECENT TRENDS CONCERNING
ANNUAL BUDGETS FOR THE
NATIONAL WILDLIFE REFUGE
SYSTEM AND IMPLICATIONS FOR
MANAGEMENT ACTIVITIES**

OVERSIGHT HEARING

BEFORE THE
SUBCOMMITTEE ON FISHERIES, WILDLIFE
AND OCEANS
OF THE

COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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**OVERSIGHT HEARING ON RECENT TRENDS
CONCERNING ANNUAL BUDGETS FOR THE
NATIONAL WILDLIFE REFUGE SYSTEM AND
IMPLICATIONS FOR MANAGEMENT ACTIVI-
TIES.**

**Wednesday, September 24, 2008
U.S. House of Representatives
Subcommittee on Fisheries, Wildlife and Oceans
Committee on Natural Resources
Washington, D.C.**

The Subcommittee met, pursuant to call, at 10:05 a.m. in Room 1324, Longworth House Office Building, Hon. Madeleine Z. Bordallo [Chairman of the Subcommittee] presiding.

Present: Representatives Bordallo, Kildee, Kind, and Wittman.

**STATEMENT OF THE HONORABLE MADELEINE Z. BORDALLO,
A DELEGATE IN CONGRESS FROM GUAM**

Ms. BORDALLO. Good morning, everyone. The oversight hearing by the Subcommittee on Fisheries, Wildlife and Oceans will now come to order.

The Subcommittee is meeting today concerning two reports regarding budget trends and the effects of recent levels on the performance of the National Wildlife Refuge System. This morning's hearing is a follow-up to the hearing the Subcommittee held last October concerning the efforts of the United States Fish and Wildlife Service to implement the National Wildlife Refuge System Improvement Act.

We will hear testimony this morning regarding a report being released today by the U.S. Government Accountability Office investigating recent budget trends affecting the Refuge System and a second report released in June by Management Systems International that evaluated the performance of the Refuge System in meeting its own strategic goals.

As we learned last year, all is not well with the Refuge System. Testimony provided by former Secretary of the Interior, Bruce Babbitt, former EPA Administrator, Carol Browner, and other witnesses painted the picture of a Refuge System stretched thin by insufficient funding, staff cuts and numerous major new challenges such as climate change, invasive species and water shortages.

Regrettably, the two reports before us today, while not entirely negative, corroborate many of the criticisms made during last year's hearing. Most importantly, it appears that the effects of insufficient funding have had a ripple effect across the Refuge System, forcing the Fish and Wildlife Service to further scale back operations at many refuges, or even close refuges to public use altogether.

Permanent staffing levels have fallen by 7.5 percent from peak staffing levels in 2003. Not surprisingly, habitat quality in many refuges has fallen between seven and 20 percent. Additionally, many visitor services programs, especially environmental education and interpretation, have noticeably declined in availability and quality.

Perhaps what will be most disturbing to many Members is that both reports emphasize that funding for law enforcement remains severely insufficient. Consequently, law enforcement operations are woefully inadequate to cover a system of public lands that includes some of the most rugged and isolated terrain in the United States—and compromise public safety throughout the entire 98 million acre Refuge System.

In closing, the sum of these two reports is clear: The Refuge System has reached a tipping point where it faces an uncertain future, yet before we can act intelligently to rectify this decline, we need to understand the facts. To the extent that this hearing helps draw attention to the current plight facing our National Wildlife Refuges, it will have been a constructive first step in our important work to rebuild the Refuge System and to bequeath to our children a wildlife legacy that is both abundant and diverse.

As Chairwoman, I would like to mention the fact that our Ranking Member is at a very important meeting at this time. I am sure he has an opening statement, so when he does arrive he will address us.

So, at this time, I would like to recognize our panel of witnesses this morning. The first is Ms. Robin Nazzaro, Director, Natural Resources and Environment, the U.S. Government Accountability Office; Mr. David Callihan, Director, Management Systems International; Mr. James Kurth, Acting Assistant Director for Refuges, U.S. Fish and Wildlife Service; Mr. Noah Matson, Vice President for Land Conservation, Defenders of Wildlife; and The Honorable William P. Horn, General Counsel, U.S. Sportsmen's Alliance, former chairman of the National Wildlife Refuge Centennial Commission and former Interior Assistant Secretary for Fish and Wildlife and Parks.

Before recognizing Ms. Nazzaro to testify, I would note for all witnesses that the red timing light on the table will indicate when your time has concluded, and we would appreciate your cooperation in complying with these limits. Please be assured that your full written statement will be submitted for the hearing record.

And now I recognize Ms. Nazzaro to please begin.

[The prepared statement of Ms. Bordallo follows:]

**Statement of The Honorable Madeleine Z. Bordallo, Chairwoman,
Subcommittee on Fisheries, Wildlife and Oceans**

This morning's hearing is a follow-up to the hearing the Subcommittee held last October concerning the efforts of the U.S. Fish and Wildlife Service to implement the National Wildlife Refuge System Improvement Act.

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STATEMENT OF ROBIN M. NAZZARO, DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE

Ms. NAZZARO. Thank you, Madam Chair. I am pleased to be here today to discuss our nation's wildlife refuges.

The National Wildlife Refuge System, administered by the Department of the Interior's U.S. Fish and Wildlife Service, comprises about 585 refuges and wetland management districts on more than 96 million acres of land and water that provide habitat for millions of waterfowl, other migratory birds, endangered species and other plants and wildlife.

In addition, refuges host about 40 million visitors each year who take part in one or more of the Refuge System's six wildlife-dependent visitor activities—hunting, fishing, wildlife observation, wildlife photography, environmental education and environmental interpretation—and other recreation activities.

My testimony today is based on the GAO report that is being released today which describes changing factors that the Refuge System experienced from Fiscal Years 2002 through 2007 and how habitat management and visitor services changed during this period.

In summary, we found that funding for the Refuge System fluctuated. Refuge System obligations for core activities, which include refuge operations, maintenance and fire management, peaked in Fiscal Year 2003, then declined until Fiscal Year 2005, before increasing again in Fiscal Year 2007 when funding adjusted for inflation was 2.3 percent below peak levels and 4.3 percent above 2002 levels.

At the refuge level, funding varied considerably with about as many refuges losing funding as gaining and 39 refuges decreasing by more than 25 percent during this period.

Staffing levels between Fiscal Years 2002 through 2007 for core refuge activities also fluctuated, peaking in Fiscal Year 2004 and then declining through Fiscal Year 2007, although ending the period 5.5 percent above 2002 levels.

The number of employees on board also declined after peaking in Fiscal Year 2004. Though 38 complex and stand-alone refuges increased their permanent staff by more than five percent since 2004, more than three times as many lost at least five percent.

During this period, Refuge System officials initiated several new policies that categorized refuges into tiers for the purpose of prioritizing funding and staffing allocations, required refuge staff to focus on completing refuge conservation plans by 2012, placed a greater emphasis on constructing smaller visitor facility structures to help visitor services funds across more refuges, increased the number of full-time law enforcement officers to improve safety and resulted in increased administrative requirements for nonadministrative staff.

Also, the influence of external factors, including extreme weather and development on adjacent lands, increased over this period.

During this time, several changes also occurred in habitat management and visitor services. Refuge managers reported that habitats for key species improved about two times as often as they worsened, but between seven percent and 20 percent of habitats were of poor quality in 2007.

Also, certain habitat management problems increased at more than half of the refuges, and managers reported that they increased the time spent on activities such as invasive plant species and habitat fragmentation.

According to most refuge managers, the quality of all six wildlife-dependent visitor services programs was stable or improving between Fiscal Years 2002 and 2007. Four of these programs were of moderate or better quality at more than three-quarters of the refuges in 2007, and even though environmental education and interpretation programs showed the most improvement since 2002, these programs were still reported to be of low quality at about one-third of the refuges.

Refuge managers expressed concerns about their abilities to sustain or improve current habitat conditions for wildlife and to provide quality visitor services into the future.

In conclusion, maintaining the Refuge System as envisioned by law where the biological integrity, diversity and environmental health of the system are maintained, priority visitor services are provided and the strategic growth of the system is continued may

be difficult in light of continuing Federal fiscal constraints and an ever-expanding list of challenges facing refuges.

If threats and problems afflicting refuges continue to grow as expected, it will be important for the Refuge System to monitor how shifts in funding and staffing levels are affecting refuge conditions.

Madam Chair, this concludes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

[The prepared statement of Ms. Nazzaro follows:]

Statement of Robin M. Nazzaro, Director, Natural Resources and Environment, U.S. Government Accountability Office

GAO HIGHLIGHTS

Why GAO Did This Study

The National Wildlife Refuge System, which is administered by the Fish and Wildlife Service in the Department of the Interior, comprises 585 refuges on more than 96 million acres of land and water that preserve habitat for waterfowl and other migratory birds, threatened and endangered species, and other wildlife. Refuges also provide wildlife-related activities such as hunting and fishing to nearly 40 million visitors every year.

GAO was asked to testify on a report that is being released today, *Wildlife Refuges: Changes in Funding, Staffing, and Other Factors Create Concerns about Future Sustainability* (GAO-08-797), which (1) describes changing factors that the refuge system experienced from Fiscal Years 2002 through 2007, including funding and staffing changes, and (2) examines how habitat management and visitor services changed during this period. For this report, GAO surveyed all refuges, visited 19 refuges in four regions, and interviewed refuge, regional, and national officials.

September 24, 2008

WILDLIFE REFUGES

Trends in Funding, Staffing, Habitat Management, and Visitor Services for Fiscal Years 2002 through 2007

What GAO Found

In its September 2008 report, GAO reports that for Fiscal Years 2002 through 2007, the refuge system experienced funding and staffing fluctuations, the introduction of several new policy initiatives, and the increased influence of external factors such as extreme weather that threaten wildlife habitat and visitor infrastructure. Although core funding—measured as obligations for refuge operations, maintenance, and fire management—increased each year, inflation-adjusted core funding peaked in Fiscal Year 2003 at about \$391 million—6.8 percent above Fiscal Year 2002 funding. Inflation-adjusted core funding ended the period 2.3 percent below peak levels, but 4.3 percent above Fiscal Year 2002 levels by Fiscal Year 2007. Core refuge staffing levels peaked in Fiscal Year 2004 at 3,610 full-time equivalents—10.0 percent above the Fiscal Year 2002 level—and then declined more slowly than funding levels. By Fiscal Year 2007, staffing levels fell to 4.0 percent below peak levels, but 5.5 percent above Fiscal Year 2002 levels. Through Fiscal Year 2007, the number of permanent employees utilized by the refuge system declined to 7.5 percent below peak levels. During this period, refuge system officials initiated new policies that: (1) reduced staff positions and reconsidered how they allocate funds and staff among refuges to better align staff levels with funding; (2) required refuge staff to focus on a legislative mandate to complete refuge conservation plans by 2012; (3) shifted to constructing a larger number of smaller visitor structures, such as informational kiosks, and fewer large visitor centers to spread visitor service funds across more refuges; (4) increased the number of full-time law enforcement officers and their associated training requirements; and (5) resulted in additional administrative work. During this period, external factors, such as severe storms, that complicate refuge staffs' ability to protect and restore habitat quality also increased.

GAO's survey of refuge managers showed that changes in the quality of habitat management and visitor service programs varied across refuges during the study period. Habitat conditions for key types of species improved about two times more

often than they worsened, but between 7 percent and 20 percent of habitats were of poor quality in 2007. Certain habitat problems increased at more than half of refuges during this period, and managers reported that they increased the time spent on certain habitat management activities, such as addressing invasive plants, despite declining staffing levels. However, several managers GAO interviewed said that staff were working longer hours without extra pay to get work done, and managers expressed concern about their ability to sustain habitat conditions. While the quality of all six visitor service programs was reported to be stable or improving between Fiscal Years 2002 and 2007 at most refuges, two programs—environmental education and interpretation—were considered poor quality at one-third of refuges in 2007. Changes in the time spent on visitor services varied considerably across refuges, and managers noted that visitor services generally are cut before habitat management activities when resources are limited. Managers are concerned about their ability to provide high-quality visitor services in the future given staffing and funding constraints.

Madam Chair and Members of the Subcommittee:

Thank you for the opportunity to discuss our work on our nation's wildlife refuges. The National Wildlife Refuge System, administered by the Department of the Interior's U.S. Fish and Wildlife Service (FWS), comprises about 585 refuges and wetland management districts on more than 96 million acres of land and water that provide habitat for millions of waterfowl, other migratory birds, endangered species, and other plants and wildlife. In addition, refuges host about 40 million visitors each year who take part in one or more of the refuge system's six wildlife-dependent visitor activities—hunting, fishing, wildlife observation, wildlife photography, environmental education, and environmental interpretation—and other recreational activities. The refuge system employs more than 4,000 staff dispersed in its offices across the country and spans all 50 states and several U.S. territories. FWS manages its refuges through its headquarters office in Washington D.C., eight regional offices, and hundreds of field offices located on or near refuge lands. Individual refuge offices may report directly to a regional office (we refer to these as "stand-alone" refuges), or may be grouped with other offices into a "complex."

My testimony is based on a report that is being released today, *Wildlife Refuges: Changes in Funding, Staffing, and Other Factors Create Concerns about Future Sustainability* (GAO-08-797), which describes changing factors that the refuge system experienced from Fiscal Years 2002 through 2007 and how habitat management and visitor services changed during this period. For that report, we obtained and analyzed funding and staffing data; surveyed stand-alone refuges and refuges within complexes and received an 81 percent response rate; visited headquarters, 4 regional offices, and 19 refuges; and conducted phone interviews with officials at the other 4 regional offices and about 50 additional refuges. We conducted this performance audit from July 2007 to September 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In summary, we found the following:

- For Fiscal Years 2002 through 2007, funding and staffing levels for the refuge system fluctuated, several new refuge system policy initiatives were introduced, and the influence of external factors such as extreme weather and human development that affect refuge operations increased.
- Survey responses and interviews with refuge managers indicated that the change in the quality of habitat and visitor service programs, as well as changes in the amount of time devoted to these activities, varied across refuges during our study period. Given recent funding and staffing changes, and other factors affecting refuges, managers expressed concerns about their ability to provide quality habitat and visitor service programs into the future.

Numerous Changes Affected Refuge Management

From Fiscal Years 2002 through 2007, several changes occurred that affected refuge management including changes in funding and staffing levels, refuge system policy initiatives, and the influence of external factors, such as extreme weather and human development.

Fluctuations in refuge funding. Inflation-adjusted funding (in 2002 dollars) for core refuge system activities—measured as obligations for refuge operations, maintenance, and fire management—peaked in Fiscal Year 2003, for the celebration of

the refuge system's centennial, at about \$391 million—6.8 percent above Fiscal Year 2002 levels—and then declined quickly to 4.7 percent below peak levels by Fiscal Year 2005, before increasing again to 2.3 percent below peak levels in Fiscal Year 2007; it ended 4.3 percent above Fiscal Year 2002 levels.¹ In nominal dollars, core funding increased each year over the time period from about \$366 million in Fiscal Year 2002 to about \$468 million in Fiscal Year 2007.

At the refuge level, inflation-adjusted core funding at refuges varied considerably during the time period, with about as many losing funding as gaining funding since Fiscal Year 2002. Specifically, from Fiscal Year 2002 through Fiscal Year 2007, core inflation-adjusted funding decreased for 96 of 222 complexes and stand-alone refuges and increased for 92, with funding remaining about the same for 34.² The magnitude of the changes in core funding at the refuge level were also more pronounced than for the trend overall. Specifically, core funding for 39 complexes and stand-alone refuges decreased by more than 25 percent during this time period.

Fluctuations in staffing levels. Staffing levels for core refuge activities (core staffing), as measured by full-time equivalents (FTE) the refuge system actually used, peaked one year later than core inflation-adjusted funding and then declined more slowly.³ Specifically, core staffing, which includes operations, maintenance, and fire management, peaked in Fiscal Year 2004 at a level 10.0 percent higher than in Fiscal Year 2002, but declined after that to 4.0 percent below peak staffing levels in Fiscal Year 2007. This level, however, was still 5.5 percent higher than the staffing level in Fiscal Year 2002. While operations and maintenance FTEs increased 3.6 percent overall during our study period, they ended the period down 6.9 percent from their 2004 peak. Fire management FTEs, on the other hand, increased 14.3 percent over Fiscal Year 2002 levels.⁴

Similar to FTEs, the number of employees on board in refuge system positions also declined after peaking in Fiscal Year 2004. Through Fiscal Year 2007, nearly 375 employees were lost from the refuge system's peak staffing levels, a reduction of 8.4 percent over this period. About three-quarters of this loss came through a reduction in permanent employees (a 7.5 percent reduction), which refuge managers and regional and headquarters officials told us are a key measure of the effective strength of the workforce available to conduct core refuge activities because they represent employees on board indefinitely. Though 38 complexes and stand-alone refuges increased their permanent staff by more than 5 percent since 2004, more than three times as many lost at least 5 percent. Figure 1 compares the trends in the refuge system's core funding, staffing, and permanent employee levels during our study period.

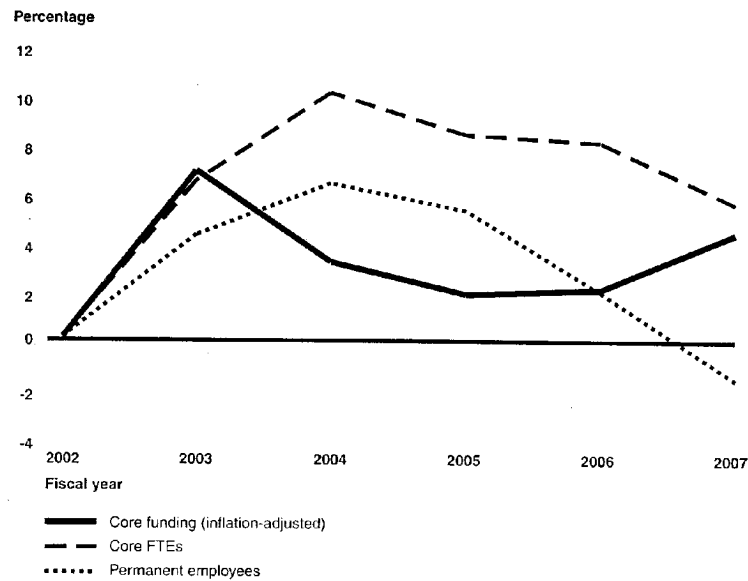
¹We adjusted nominal dollars using the Gross Domestic Product (GDP) Price Index for Government Consumption Expenditures and Gross Investment (federal nondefense sector), with 2002 as the base year, which assigns greater weight to changes in federal workers' compensation than do other indices.

²We defined funding increasing or decreasing by 5 percent or less over the time period as staying about the same. Four refuges incurred no obligations during the Fiscal Year 2002 to 2007 time period.

³Actual FTEs, representing staff time charged to specific activities at complexes and stand-alone refuges, are reported in the Federal Financial System. They differ from budgeted FTEs, which generally represent the operations and maintenance staffing ceiling for the refuge system in a given fiscal year and are reported in the annual Fish and Wildlife Service budget justifications.

⁴About 38 percent of the increase in fire management activities over the study period was due to an increase in emergency wildfire suppression, prevention of further degradation, and rehabilitation of burned areas.

Figure 1: Comparison of Cumulative Percentage Change in the Refuge System's Core Funding, Core FTEs, and Permanent Employees, Fiscal Years 2002 through 2007



New policy initiatives. Several new refuge system policy initiatives were implemented during this period:

- Recognizing that funding declines after 2003 were exacerbating an already high proportion of staff costs in refuge budgets, regional offices began to (1) reduce staff positions through attrition and by further consolidating some stand-alone refuges into complexes, and (2) categorize refuges into three tiers for the purpose of prioritizing funding and staffing allocations among refuges. These measures are primarily responsible for the decline in FTEs and permanent employees from Fiscal Year 2004 peak levels and the shifts in staffing among complexes and stand-alone refuges.
- Recognizing that the refuge system was not on pace to meet a mandate in the National Wildlife Refuge System Improvement Act of 1997 to complete conservation plans for each refuge by 2012, refuge system officials created a completion schedule and, beginning in 2004, began requiring staff at refuges to turn their attention to completing the plans. While refuge officials believe that they can meet the deadline, current information shows that some plans are behind schedule.
- To help spread visitor service funds across as many refuges as possible, refuge officials began placing a greater emphasis on constructing smaller visitor facility structures, such as informational kiosks and restrooms, at a larger number of refuges rather than constructing a smaller number of traditional visitor centers.
- To improve safety and address other concerns, refuge system management began an initiative to increase the number of full-time law enforcement officers and their associated training and experience requirements. However, refuge officials told us that they need to hire about 200 additional officers in order to reach the minimum number needed to provide adequate protection to refuge resources and visitors.
- Various refuge system, FWS, and Interior policies increased requirements on nonadministrative staff to enter additional data into certain systems and respond to numerous data calls. Refuge system officials are beginning to implement changes to reduce some of these administrative burdens.

Increasing external factors. The influence of external factors—those outside the control of the refuge system that complicate refuges’ abilities to protect and restore habitat quality, including extreme weather and development on adjacent lands—increased over this period. For example, refuge managers reported that between Fiscal Years 2002 and 2007, the influence of development—such as the expansion of urban areas and the conversion of off-refuge land near refuges to agriculture or industrial use—increased around refuges and contributed to refuge habitat problems for almost one half of the refuges. Such development can pollute refuge lands and waters and make it more difficult to maintain viable, interconnected habitat in and around a refuge’s borders.

Changes in Habitat Management and Visitor Services

From Fiscal Years 2002 through 2007, several changes occurred in refuges’ habitat management and visitor services, creating concerns about the refuges’ abilities to maintain high quality habitat and visitor services in the future.

Habitat management. Habitats on refuges for five types of key species—waterfowl, other migratory birds, threatened and endangered species, candidate threatened and endangered species, and state species of concern—improved between Fiscal Years 2002 and 2007—about two times as often as they worsened (see table 1).

Table 1: Change in Habitat Quality by Species Type, Fiscal Years 2002 through 2007

Species type	Percent of refuge habitats where quality improved	Percent of refuge habitats where quality stayed the same	Percent of refuge habitats where quality worsened
Waterfowl	36	47	18
Other migratory birds	40	44	17
Threatened and endangered species	28	52	11
Candidate threatened and endangered species	33	47	14
State species of concern	29	54	13

Source: GAO.

Note: Refuge managers identified habitat quality for specific threatened and endangered species, candidate species, and state species of concern occurring on their refuges that are aggregated into these general “types of species” categories. Not all species occurred on every refuge. Some rows may not sum to 100 due to rounding and survey responses such as “no basis to judge.”

Refuge managers reported two to nearly seven times as often that habitats for several types of key species were of high quality than low quality in 2007 (see table 2). Habitat quality is determined by the availability of several key components, including fresh water, food sources, and nesting cover, among other things, and the absence of habitat problems, such as invasive species. High quality habitat generally provides adequate amounts of each of these main habitat components and is not significantly affected by habitat problems, while low quality habitat generally lacks these components and may have significant problems; moderate quality habitat has a mixture of these attributes.

Table 2: Habitat Quality by Species Type, Fiscal Year 2007

Species type	Percent of habitats reported as high quality	Percent of habitats reported as moderate quality	Percent of habitats reported as low quality
Waterfowl	41	39	20
Other migratory birds	47	47	7
Threatened and endangered species	48	40	12
Candidate threatened and endangered species	37	46	17
State species of concern	47	41	13

Source: GAO.

Note: Refuge managers identified habitat quality for specific threatened and endangered species, candidate species, and state species of concern occurring on their refuges that are aggregated into these general "types of species" categories. Not all species occurred on every refuge. Some rows may not sum to 100 due to rounding.

Complicating habitat management is growing pressure from increasing habitat problems occurring on refuges and the influence of external factors. Our survey found that invasive plant species and habitat fragmentation—the disruption of natural habitat corridors, often caused by human development activities—were the leading problems, affecting 55 percent and 44 percent of refuges, respectively, and both were increasing on more than half of refuges. Managers at refuges close to urban centers showed us busy roads adjacent to their refuge that have cut off natural habitat corridors, leading to animals trying to cross them or cutting them off from other members of their species, leading to genetic homogeneity and inbreeding. Managers of more rural refuges talked about increasing pressures to convert lands to agricultural uses, citing factors such as the increasing price of corn, or to industrial uses, such as oil and gas development.

At the same time, refuge managers reported increasing the time spent on a number of key habitat management activities on many refuges between Fiscal Years 2002 and 2007 (see table 3). Importantly, time spent on developing comprehensive conservation plans, which are required by the Improvement Act, increased for 59 percent of refuges during our study period. In addition, refuges that increased the time spent on habitat management activities were about three times more likely to report that habitat quality for waterfowl and other migratory birds improved rather than worsened.

Table 3: Habitat Management Activities That Increased the Most at Refuges, Fiscal Years 2002 through 2007

Activity	Percent of refuges that somewhat or greatly increased time spent on activity	Percent of refuges that somewhat or greatly decreased time spent on activity
Addressing invasive plants	61	9
Conducting comprehensive conservation planning	59	6
Coordinating with nearby landowners	49	7
Conducting habitat restoration projects	48	14
Conducting routine habitat management activities	43	18
Conducting inventory and monitoring surveys of habitat conditions	41	19
Conducting inventory and monitoring surveys of wildlife populations	39	21

Source: GAO.

In light of increasing problems and threats affecting refuge conditions, as well as recent funding and staffing constraints, refuge managers and regional and headquarters officials expressed concern about refuges' abilities to sustain or improve current habitat conditions for wildlife into the future. Even though our survey showed that a large number of refuges increased staff time on habitat management activities, some refuge managers we interviewed explained that staff were simply working longer hours to get the work done. Several refuge managers repeatedly indicated that despite growing habitat problems, an increasing administrative workload, and reduced staffing, they are still trying to do everything possible to maintain adequate habitat, especially habitats for key species, such as waterfowl, other migratory birds, and threatened and endangered species. Several managers said that attention to key habitats is the last thing that will stop receiving management attention in the event of declining funding. Several managers even said that they have to limit the amount of time staff spend at the refuge, as these employees are working overtime without extra pay.

Visitor services. Our survey found that the quality of all six wildlife-dependent visitor services was stable or improving between Fiscal Years 2002 and 2007, according to the vast majority of refuge managers responding to our survey. Most notably, environmental education and interpretation programs showed the largest percentage of refuges reporting improvement, although these programs also showed the largest percentage reporting declines as well, as compared to other visitor services (see table 4).

Table 4: Change in Quality of Visitor Services Programs, Fiscal Years 2002 through 2007

Visitor service	Percent of refuges reporting improved quality	Percent of refuges reporting quality stayed the same	Percent of refuges reporting quality worsened
Hunting	26	65	9
Fishing	19	68	13
Wildlife observation	36	56	8
Wildlife photography	27	65	8
Environmental education	40	39	22
Environmental interpretation	47	38	15

Source: GAO.

Note: Some rows may not sum to 100 due to rounding.

Our survey found that four of the six key visitor services provided to the public were of moderate or better quality at most refuges in 2007, but environmental education and interpretation were reported to be low quality at about one-third of refuges (see table 5). Managers told us that education and interpretation are among the most resource intensive visitor service programs and, for these reasons, the programs are often among the first areas to be cut when a refuge faces competing demands.

Table 5: Quality of Visitor Services Programs, Fiscal Year 2007

Visitor service	Percent of refuges with high or very high quality programs	Percent of refuges with moderate quality programs	Percent of refuges with low or very low quality programs
Hunting	56	35	9
Fishing	33	44	23
Wildlife observation	55	35	10
Wildlife photography	42	41	17
Environmental education	36	31	33
Environmental interpretation	32	36	32

Source: GAO.

Note: Refuges may not have programs in all six areas.

A major factor influencing the quality of visitor services—beyond the abundance of fish and wildlife populations—is the amount and quality of refuge infrastructure and the availability of supplies. For example, the availability of trails and tour routes is essential to providing the public with access to what refuges have to offer and is generally important for supporting any type of visitor service activity. Hunting and fishing infrastructure depend largely on physical structures such as duck blinds, boat launches, and fishing platforms. Providing wildlife observation and photography opportunities simply require adequate access to the refuge, but can be enhanced through observation platforms and photography blinds. Environmental education depends on physical infrastructure, such as classrooms, and supplies, such as workbooks, handouts, and microscopes. Environmental interpretation also depends on physical infrastructure such as informational kiosks and interpretive signs along trails.

Some refuges reported that they expanded their visitor services infrastructure between Fiscal Years 2002 and 2007, for example, by adding informational kiosks and

trails and tour routes, yet more than one-half of refuges reported no change (see table 6). Most refuges also reported that the quality of their visitor services infrastructure stayed about the same or increased since 2002.

Table 6: Infrastructure Quantity and Condition Changes, Fiscal Years 2002 through 2007

Type of infrastructure	Quantity of infrastructure			Condition of infrastructure		
	Quantity increased	Quantity stayed the same	Quantity decreased	Condition improved	Condition stayed the same	Condition worsened
Trails and tour routes*	41	54	5	39	35	26
Hunting infrastructure	21	75	4	22	66	12
Fishing infrastructure	25	70	5	27	49	24
Wildlife observation infrastructure	37	60	3	36	47	17
Wildlife photography infrastructure	35	63	3	30	58	12
Education infrastructure	28	66	6	30	52	18
Interpretation infrastructure	57	38	5	50	32	19

Source: GAO.

Notes: Some rows may not sum to 100 for the quantity of infrastructure or condition of infrastructure, due to rounding.

*Trails and tour routes can be used to support all types of visitor service programs.

Time spent by refuges on visitor services varied considerably throughout the system. Overall, at least one in five refuges reported a decrease in staff time for each visitor service area (see table 7).

Table 7: Change in Time Spent on Visitor Services, Fiscal Years 2002 through 2007

Visitor service	Percent of refuges that somewhat or greatly increased time spent	Percent of refuges that spent the same amount of time spent	Percent of refuges that somewhat or greatly decreased time spent
Hunting	29	46	25
Fishing	20	60	20
Wildlife observation	34	45	21
Wildlife photography	25	54	21
Environmental education	44	27	29
Environmental interpretation	44	28	27

Source: GAO.

Notes: Percentages in this table represent changes in staffing for those refuges that report time spent on a given visitor service. Some rows may not sum to 100 due to rounding.

Refuge managers indicated that staffing changes and a lack of resources for increasing and maintaining infrastructure, raise concerns about their ability to provide quality visitor services into the future. Our survey results showed that the time spent by permanent staff on visitor services had been reduced at more than one-third of refuges and more than half of refuge managers reported increasing their reliance on volunteers to help manage visitor centers and deliver education programs, for example. Refuge managers are also concerned about the impact that the increasing administrative workload incurred by non-administrative refuge staff is having on the refuges' ability to deliver visitor services. Refuge managers and regional and headquarters officials expressed concern about the long-term implications of declining and low quality visitor services. Many refuge managers cited the importance of ensuring that the public has positive outdoor experiences on refuges and providing them with meaningful educational and interpretative services. Managers said that the availability of visitor services is a way to get young people interested in future careers with the refuge system and instill in children an appreciation for wildlife and the outdoors as well as an interest in maintaining these resources. In addition, visitor services are important for developing and maintaining community

relationships, as the refuge system is increasingly turning toward partnerships with private landowners and other agencies and organizations to maintain and improve ecosystems both on and around wildlife refuges.

In conclusion, maintaining the refuge system as envisioned in law—where the biological integrity, diversity and environmental health of the refuge system are maintained; priority visitor services are provided; and the strategic growth of the system is continued—may be difficult in light of continuing federal fiscal constraints and an ever-expanding list of challenges facing refuges. While some refuges have high quality habitat and visitor service programs and others have seen improvements since 2002, refuge managers are concerned about their ability to sustain high quality refuge conditions and continue to improve conditions where needed because of expected continuing increases in external threats and habitat problems affecting refuges. Already, FWS has had to make trade-offs among refuges with regard to which habitats will be monitored and maintained, which visitor services will be offered, and which refuges will receive adequate law enforcement coverage. FWS's efforts to prioritize its use of funding and staff through workforce planning have restored some balance between refuge budgets and their associated staff costs. However, if threats and problems afflicting refuges continue to grow as expected, it will be important for the refuge system to monitor how these shifts in resources are affecting refuge conditions.

Madam Chair, this concludes my prepared statement. I would be pleased to answer any questions that you or other Members of the Subcommittee may have at this time.

GAO Contacts and Staff Acknowledgments

For further information about this testimony, please contact me at (202) 512-3841 or nazzaror@gao.gov. Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Trish McClure, Assistant Director; Mark Braza; David Brown; Stephen Cleary; Timothy J. Guinane; Carol Henn; Richard Johnson; Michael Krafve; Alison O'Neill; George Quinn, Jr.; and Stephanie Toby made key contributions to this statement.

Ms. BORDALLO. Thank you very much, Ms. Nazzaro. We appreciate your comprehensive assessment of the Refuge System and the GAO's efforts to shine a bright light on the substantial challenges brought about by the inadequate funding of the system.

I now recognize Mr. Callihan to testify for five minutes concerning his work heading up the MSI evaluation. Please proceed.

STATEMENT OF DAVID CALLIHAN, DIRECTOR, MANAGEMENT SYSTEMS INTERNATIONAL

Mr. CALLIHAN. Yes. Good morning, Madam Chairwoman. I just want to go over a little bit some of the highlights and the process of the evaluation that we undertook.

We were contracted in late 2006 to conduct an independent evaluation of the effectiveness of the National Wildlife Refuge System. Can you hear OK? It is coming through? Our evaluation was looking at the effectiveness of the Refuge System in accomplishing its mission and meeting and achieving each of the 12 strategic outcome goals contained in the 2007 Refuge System strategic plan.

The evaluation that we undertook was a fairly comprehensive evaluation. We conducted interviews with several hundred people, including all the managers of the key Refuge System programs, as well as most of the nongovernmental partners that are most closely involved with the Refuge System.

We produced a report that is structured according to findings, conclusions and recommendations. We tried to be as objective as possible, and we provided findings, conclusions and recommendations for each of the 12 strategic objective outcomes, and we provided an overall effectiveness rating for each of those outcomes.

In terms of the effectiveness ratings, they go from ineffective to highly effective. There was one goal that was rated highly effective that had to do with partnerships and cooperative projects.

There were four strategic outcome goals rated as effective. Those were the ones related to wildlife dependent recreation; providing infrastructure and equipment adequate to address and support the mission of the Refuge System; completing quality and useful comprehensive conservation plans; and reducing wildfire risks and improve habitats.

The strategic objective goals rated as partially effective were——

Ms. BORDALLO. Sir, would you move a little closer to the microphone so we can——

Mr. CALLIHAN. The strategic objective goals we rated as partially effective were conserve management where appropriate; restore fish, wildlife and plant resources; ensure the unique values of wilderness and other special designation areas are protected; welcome and orient visitors; promote and enhance organizational excellence.

The two strategic objective goals that we rated as ineffective were protect resources and visitors through law enforcement and strategically grow the Refuge System.

A few of the highlights in terms of the accomplishments that we came across that I would just like to note is in terms of the CCP process. The Refuge System is supposed to have all CCPs completed for refuges by 2012. While the rate of progress was initially slow, it has picked up considerably in the last few years, and it appears to us that the Refuge System is pretty much on track to meet that objective.

In addition, it is mandated that the Refuge System work with state fish and game agencies on the development of CCPs. When we undertook a survey of state fish and game agencies, 94 percent had said they had been provided meaningful opportunities to participate in that process, and 95 percent of the respondents said that being involved in the CCP process had improved communications and coordination between the state agencies and the Refuge System.

Also during the period of the study between 1996 and 2000 there was a substantial increase in refuges that were providing hunting and fishing opportunities. In fact, the number of refuges providing hunting opportunities during this period increased by 24 percent up to 366.

In addition, the one area that we rated as highly effective was the Refuge System's strategic objective to facilitate partnerships. We found that there has just been a tremendous level of support from Refuge System partners. It hasn't been accidental. The Refuge System has undertaken programs to nurture this program.

In the latest year that information was available when we were undertaking this study, there was \$50 million brought into the system in 2006 and \$30 million of that was in direct cash contributions, so that is a tremendous achievement in terms of partner contributions.

A few areas that we felt were most affected by insufficient financial support was the law enforcement program, which simply has too few officers and it is unable to provide adequate coverage within the Refuge System. We also noted that the pace of realty acqui-

sition has slowed dramatically in recent years due to budget declines.

And I think the third area where we felt was most affected by insufficient funding was the biological inventory and monitoring work that was being conducted. We felt, and the refuge managers agreed in the survey, and this was confirmed through our field visits, that there was just an insufficient level of inventory and monitoring being done.

Just in conclusion, I would just like to thank the Refuge System for their open embrace of the process that we undertook. We were given complete access to all staff and all information.

I think that it is not easy for an organization to undergo an open and independent evaluation like this, but all of the top managers in the Refuge System were very cooperative and they were very sincere in their interest in using this to make improvements where those improvements are possible.

Thank you.

[The prepared statement of Mr. Callihan follows:]

**Statement of David Callihan, Director,
Management Systems International**

The National Wildlife Refuge System contracted with Management Systems International in September 2006 to conduct an independent evaluation of the overall effectiveness of its program. The evaluation's purpose was to identify program strengths and weaknesses, and to determine whether and to what degree the Refuge System is achieving its conservation mission.

This testimony document is principally drawn from the Executive Summary of the MSI report entitled *An Independent Evaluation of the Effectiveness of the U.S. Fish and Wildlife Service's National Wildlife Refuge System*, which was finalized in June 2008. In addition, some material has also been included from the full report in order to cover areas that are most pertinent to this hearing. The research for the evaluation was conducted between October 2006 and September 2007 and thus represents a snapshot in time; some of the report's findings and budgetary figures are now out of date.

This report produced by MSI is an evaluation of the effectiveness of the performance of the National Wildlife Refuge System and contains analysis on the Refuge System's ability to effectively achieve the twelve Strategic Outcome Goals contained in its 2007 Strategic Plan. The summary of the complete evaluation includes an overall performance rating, conclusions and recommendations for each of the Refuge System's twelve strategic outcome goals. A complete set of evaluation findings can be found in the full report—*An Independent Evaluation of the Effectiveness of the U.S. Fish and Wildlife Service's National Wildlife Refuge System* (MSI, June 2008). In addition to findings, the complete evaluation report contains response data from three surveys (refuge managers, state fish and game agencies, and Friends Groups/partners), a list of all persons interviewed (approximately 250), references, and a bibliography.

Budgetary Impacts on Program Performance

Over the period of performance that was examined by MSI (roughly between the passage of the 1997 Refuge Impact Act and 2007) there was an overall decline in the Refuge System's budget; purchasing power declined by approximately 11% between the FY 2003 peak and the requested FY 2008 budget. (Note: The FY08 enacted budget restored most, but not all, of the decline in purchasing power.)

We believe that the following areas of operation were most severely impacted by declining budget allocations:

- The law enforcement program has too few officers and does not have adequate resources to hire enough officers. As a result, there is insufficient law enforcement coverage.
- The pace of realty acquisition has slowed in recent years as a result of budget declines.
- Anecdotal and survey evidence suggests that biological survey and monitoring work has declined.

- Over the past five years or so, as real budgets have been in decline, refuges in several administrative regions have found that they had been expending upwards of 90% of their operations and maintenance funds on personnel costs, which left insufficient funds for operational tasks and projects, such as habitat restoration. The result of this re-balancing exercise has been to revisit and reduce staff in several regions, which also has meant reducing programs and operations. Some illustrative impacts of the workforce planning exercise are expected to include:
 - In Region 4, up to 20% of the workforce is expected to be eliminated (from its peak in FY2003), which will result in a significant cutback in some services. For example, these cutbacks will include: reducing the number of days per week that some refuge visitor centers are open; reducing trail maintenance; reducing biological inventory and survey work; cutting back or eliminating visitor service programs, such as environmental education; and operating some refuges without any staff (de-staffing).
 - In Region 5, a number of refuges are being de-staffed as a means to move forward with staff cuts, while full biological and public use programs will be maintained only at select “stay strong” refuges. In addition, recognizing the need to “do less with less,” the Regional Office is asking all refuges to focus their visitor service programs on two public uses, rather than on each of the “Big 6” activities.
 - A number of refuges are being de-staffed; for example, in Region 5, 7 of 71 refuges were expected to be de-staffed within the year of the workforce plan’s completion plan.

In other regions the staff cutbacks under workforce planning have not been as severe. For example, the CNO and Alaska regions were not expected to have to make any significant cut-backs in staffing.

- In several regions, key services such as visitor programs, environmental education, and biological monitoring are being curtailed or eliminated.
- As a counterbalance to the above, over the past ten years the Refuge System has been able to significantly expand participation by volunteers and Friends Groups. Partnerships with thousands of local and national organizations make a significant contribution to the accomplishment of the Refuge System’s key objectives, particularly in the areas of habitat restoration and visitor services; and partnerships bring a tremendous amount of funding into the system—in 2005 alone the total value of partnership contributions to the Refuge System exceeded \$50 million, with over \$30 million of the total being in direct cash contributions. The level of volunteer support increased dramatically over the past ten years—from 383,983 hours in 1987 to 1,478,797 in 2005.

Background

The U.S. National Wildlife Refuge System was created by Executive Order On March 14, 1903, when President Theodore Roosevelt established the country’s first wildlife refuge on Florida’s central Atlantic coast—the Pelican Island National Wildlife Refuge (NWR). From its modest beginning on Pelican Island the Refuge System has expanded into a network of over 550 distinct units that encompasses over 95 million acres. Alaska contains approximately 76.8 million acres of refuge lands, or about 80% of the land in the total system.

To accomplish its mission the Refuge System finalized a strategic plan in early 2007 that contains twelve strategic outcome goals (SOGs). These goals cover the areas of habitat and wildlife conservation, wildlife-dependent recreation, law enforcement, fire management, welcoming and orienting visitors, wilderness management, conservation planning, infrastructure and equipment maintenance, strategic growth and organizational excellence. The Refuge System is part of the United States Fish and Wildlife Service, which is managed by the Department of Interior. The National Wildlife Refuge System collaborates closely with other Fish and Wildlife Service programs, including the migratory birds, endangered species and fisheries programs.

The MSI evaluation report reviews the Refuge System’s twelve strategic outcome goals and provides an assessment as to how well the system is doing in accomplishing each goal. In addition, a section on the Refuge System’s operating context, which analyzes budget and administrative trends over the past several years, has also been included.

Evaluation Methodology

The evaluation was conducted between October 2006 and September 2007 and used a multi-method and multi-source data collection methodology.¹ MSI used a multi-source methodology to overcome the limitation of having to base analysis on a single source of information as single-source data may have weaknesses or unduly bias conclusions. In addition, a multi-method approach allows for a greater depth of understanding of particular issues.

The principal data collection processes used in this evaluation included:

Fish and Wildlife Service (FWS) and Partner Interviews: More than 250 interviews were conducted as part of this evaluation. Those interviewed included: Refuge System managers in Washington; a wide range of FWS field staff, from both regional offices and field stations; Refuge System stakeholders in Congress, the Department of the Interior and the Office of Management and Budget (OMB); national and local NGO partners; and staff from state fish and wildlife agencies.

Site Visits: The evaluation team visited all eight Refuge System regional offices and at least two refuges in each region. Refuge and regional office visits included meetings with refuge and regional office staff, state fish and game officials and non-governmental partners, such as representative from the Audubon Association, Ducks Unlimited, the Nature Conservancy, Friends Groups and other local partners.

Refuge Managers Survey: An on-line Refuge Manager's Survey was conducted between March 21st and April 19, 2007. The survey was a combination of close-ended and open-ended questions structured to collect information on the implementation and effectiveness of the Refuge System's twelve strategic outcome goals. A total of 312 refuge managers completed the survey, which represents a survey completion rate of over 90% of current refuge managers.

Partners and State Fish and Game Surveys: Two additional surveys were conducted to solicit the views of Refuge System partners on the quality of their partnerships with the Refuge System and on their views of the Refuge System's effectiveness. These surveys were:

- A survey of local Partners and Friends Groups was undertaken from March 17-25, 2008. A total of 83 responses were received from 98 potential respondents. The response rate was 85%.
- A survey of officials from state fish and game agencies was conducted from April 29-May 16, 2008. Responses were limited to one response per state agency. A total of 32 states responded to the survey, which constitutes a response rate of 64%.

Review of Existing Data: This included documents and databases, both from the Refuge System and from other land management agencies—the latter which provided context and benchmarking. Analysis included a careful review of the Refuge System's annual performance monitoring database—the Refuge Annual Performance Plan (RAPP).

Principal Findings and Conclusions

An overview of the performance of each Strategic Outcome Goal is provided in the table below and a brief discussion of each SOG follows.

¹ Expect for two surveys (partner survey and state fish and game agency survey), evaluation activity was completed by September 2007; the surveys were completed in April and May 2008.

Ratings	Goals
Operating Context: Budgets are down over the last several, as purchasing power have declined 11% between fiscal year 2003, and 2007. (Note: The FY08 <i>enacted</i> budget restored most, but not all, of the decline in purchasing power.) During this period of budget decline the Refuge System's operational costs have increased due to inflation and annual salary adjustments. In addition, over the past five years, administrative non-core requirements have increased.	
Highly Effective	SOG 6: Facilitate Partnerships and Cooperative Projects to Engage Other Conservation Agencies, Volunteers, Friends, and Partners in the NWRs Mission.
Effective	SOG 5: Provide Quality Wildlife-Dependent Recreation and Education Opportunities. SOG 8: Provide Infrastructure and Equipment Adequate to Support Mission and Maintained in Good Condition. SOG 9: Complete Quality and Useful Comprehensive Conservation Plans on Schedule and with Full Engagement of Partners. SOG 11: Reduce Wildfire Risks and Improve Habitats.
Partially Effective	SOG1: Conserve Manage, and Where Appropriate, Restore Fish, Wildlife and Plant Resources and Their Habitats SOG 3: Ensure that Unique Values of Wilderness, other Special Designation Areas, and Cultural Resources are protected. SOG 4: Welcome and Orient Visitors. SOG 12: Promote and Enhance Organizational Excellence.
Ineffective	SOG 7: Protect Resources and Visitors through Law Enforcement. SOG 10: Strategically Grow the System.
Unable to Evaluate	SOG 2: Provide Quality Environments with Adequate Water.

Operating Context:

Budget Trends: NWRs budgets have declined over the past several years, with actual purchasing power having declined about 11% between the FY 2003 peak and the requested FY 2008 budget. (Note: The FY08 enacted budget restored most, but not all, of the decline in purchasing power.) During this period of budget decline some Refuge System costs have increased due to inflation and annual adjustments, e.g. salaries. As a result, the Refuge System has not been able to maintain its level of operational activity from one year to the next—services and personnel have had to be cut back. Maintenance funding, however, has significantly increased—with a jump of 436% over eight years (FY 1996—FY 2004).

Recent budget declines appear to have severely affected refuge operations. This is evident based on a number of findings, including:

- 94% of refuge managers' survey comments indicated an inability on the part of the NWRs to accomplish its mission due to inadequate budgets and staffing;
- Workforce planning exercises are leading to significant cutbacks in personnel and services; for example, the Region 4 plan calls for a 20% reduction in staff;
- In several regions, key services such as visitor programs, environmental education, and biological monitoring are being curtailed or eliminated; and
- A number of refuges are being de-staffed; for example, in Region 5, 7 of 71 refuges will be de-staffed within the next year.

Administration/Workload: Refuge System administrative reporting has reached an unbalanced and critical level and is diverting time and resources away from mission-critical activities. There has been a clear trend, particularly over the past five years, of increased workload requirements and increased administrative reporting. While some of the workload requirements, such as the need to produce CCPs, directly support the core mission of the Refuge System, much of the work relates to administrative requirements, such as the implementation of multiple and apparently redundant timekeeping and accountability processes. Much of the effort to address accountability concerns is disproportionate to the resources involved; for example, small refuges must use the same complex systems as large refuges even though their discretionary annual operations budgets may be as small as \$20,000-\$30,000

per year. The Refuge System places an emphasis on accountability that often times appears to be disproportionate to the level of resources being monitored, which is not cost effective and is a distraction to a focus on the organization's core conservation mission.

Overall Operating Context: The confluence of declining budgets, declining staff, and a significant increase in administrative workload has impaired the Refuge System's ability to focus on and accomplish its core mission—that of conserving habitat and resources.

Concurrent with declining budgets, the Refuge System has also experienced an increase in administrative requirements. Together, these factors have had a negative effect on the Refuge System's ability to achieve its core goals—refuge managers have less time, and less money, to focus on the accomplishment of their mission than was the case five years ago. The areas most impacted have included: the Refuge System's ability to conduct adequate monitoring and inventory work; the law enforcement program, which simply has too few officers to enable the Refuge System to provide adequate law enforcement coverage; and the rate of growth of the Refuge System, which has declined markedly over the past five years.

SOG 1: Conserve Manage, and Where Appropriate, Restore Fish, Wildlife and Plant Resources and Their Habitats.

Partially Effective: This objective is rated "Partially Effective" because of the significant amount of refuge land that is in need of additional management attention and the inconsistent application of science-based management across the Refuge System. As per the Refuge System's RAPP performance reporting system, 89% of refuge lands—76.5 million acres—are in Class I condition, which means the land is receiving needed management action or does not require additional management action at this time. Alaska's sixteen refuges report that 98% of their habitats were in Class 1 condition in 2006 (as per RAPP data reporting). However, for NWRS lands outside of Alaska, 59 % of the 18.9 million acres were reported as being in Class 1 condition in 2006—meaning that 41% are in need of management attention.

A significant portion of refuges have not developed Habitat Management Plans and there is an insufficient level of biological inventory and monitoring work being done—only 11% of refuge managers surveyed described the current level of inventory and monitoring work as being mostly or fully sufficient.

SOG 2: Provide Quality Environments with Adequate Water.

Unable to Evaluate: This objective is rated "Unable to Evaluate" as a result of the limited information available against which to undertake an assessment of this strategic goal. The Refuge System does not currently operate a well defined and structured water resources program. There is currently no individual or office designated to coordinate the Refuge System's water rights and water quality activities.

SOG 3: Ensure that Unique Values of Wilderness, other Special Designation Areas, and Cultural Resources are protected.

Partially Effective: The NWRS contains about 20.7 million acres of wilderness, of which approximately 90%, or 18.6 million acres, is in Alaska. In addition, about 1.9 million of proposed acres of wilderness exist in the NWRS. The NWRS currently operates under the 1986 Wilderness Stewardship Policy. This policy is outdated and does not provide Refuge Managers adequate guidance regarding permissible management actions. A new draft policy has been developed and was released for public comment in 2001 but has never been finalized. The NWRS has supported the development of wilderness training courses and refuge managers overwhelmingly feel these courses have been effective in enabling them to acquire the skills necessary to manage wilderness areas; 64% of refuge managers who manage wilderness areas have completed the required wilderness training.

SOG 4: Welcome and Orient Visitors.

Partially Effective: The NWRS is reasonably effective in terms of informing and engaging refuge visitors but could easily improve its performance in this area. Brochures are generally informative and available at refuges, and refuge employees and volunteers are able to provide helpful and informative answers to visitor questions. However, videos and CDs—very engaging and effective means of providing information to refuge visitors—are substantially underutilized. The information provided on refuge websites is very inconsistent from refuge to refuge and frequently provides only the most basic information. The NWRS could do a substantially better job at orienting visitors by improving its websites and making sure website content is updated and consistent.

SOG 5: Provide Quality Wildlife-Dependent Recreation and Education Opportunities.

Effective: The Refuge System has done a good job at expanding the number of refuges that offer wildlife-dependent recreation opportunities and, overall, the visitor satisfaction rate at refuges appears to be very high “above 90% in the 2002 and 2004 surveys (note: the surveys were conducted only at fifty high visitation refuges). In terms of the individual Big 6 recreational activities, the operation of hunting, fishing, wildlife viewing, and photography programs are generally operating at a satisfactory level in terms of the Refuge System’s ability to provide an adequate level of service and in terms of the support provided to those programs by the Refuge System. The environmental education and interpretive programs, on the other hand, are not able to meet public demand and are not adequately supported by the Refuge System. This latter conclusion is based solely on the view of refuge managers: 55% of refuge managers surveyed indicated they are not able to adequately meet the demand for environmental education services and 48% indicated they are not able to meet the demand for interpretive services.

SOG 6: Facilitate Partnerships and Cooperative Projects to Engage Other Conservation Agencies, Volunteers, Friends, and Partners in the NWRs Mission.

Highly Effective: This objective was rated highly effective for several reasons: over the past ten years the Refuge System has been able to significantly expand participation by volunteers and Friends Groups; partnerships with thousands of local and national organizations make a significant contribution to the accomplishment of the Refuge System’s key objectives, particularly in the areas of habitat restoration and visitor services; and partnerships bring a tremendous amount of funding into the system—in 2005 alone the total value of partnership contributions to the Refuge System exceeded \$50 million, with over \$30 million of the total being in direct cash contributions.

State Fish and Game Agencies: 88% of state agencies rated the quality of their relationship with individual refuges as between good and excellent; 47% rated the quality of the relationship as excellent or very good.

Partner Agencies: 93% of partners rated the quality of their relationship with individual refuges as between good and excellent; 56% rated the quality of the relationship as excellent.

SOG 7: Protect Resources and Visitors through Law Enforcement.

Ineffective: Low staffing levels are leading to a substantial and critical lack of law enforcement coverage and capability at many refuges across the system. At many refuges, law enforcement coverage is insufficient to ensure the protection of resources and the safety of visitors and refuge staff. A substantial majority of refuge managers (over 70%) feel visitor safety and law enforcement performance has declined in recent years. The issue of public safety is of particular concern given that only seven of the refuge managers from 50 high visitation refuges (with annual visitation in excess of 250,000) who responded to the MSI survey indicated that law enforcement coverage is sufficient on their refuge. It is highly unlikely that any meaningful progress towards improving the Refuge System’s law enforcement capability can be achieved under current and expected budget allocation levels.

SOG 8: Provide Infrastructure and Equipment Adequate to Support Mission and Maintained in Good Condition.

Effective: The most important refuge assets—those most necessary to the achievement of refuge conservation and public use objectives—are generally well maintained. Seventy-five percent of refuge managers surveyed feel that the assets most critical to their refuge’s mission and purpose, such as water management systems, are maintained in a condition adequate to support and achieve those goals. An important caveat to this conclusion is the fact that a substantial minority of refuge managers (40%) believe their refuges require new facilities if they are to meet their purpose and objectives. In the mid-1990s, the maintenance of the Refuge System’s infrastructure and equipment was a critical concern and the maintenance budget subsequently increased dramatically—from \$21 in 1996 million to \$91.5 million in 2004 (a 336% increase over eight years in actual funding dollars). The availability of increased funds over the past seven or eight years has allowed the Refuge System to effectively address preventive maintenance requirements. Subsequent to 2004, however, maintenance funding dipped substantially—a decline of 30% from 2004 to 2007. It is important to note that if the recent backsliding in maintenance funding is not reversed infrastructure maintenance will soon once again become a critical problem.

SOG 9: Complete Quality and Useful Comprehensive Conservation Plans (CCPs) on Schedule and with Full Engagement of Partners.

Effective: The NWRS is required to complete CCPs for 554 refuges by 2012. To date, two hundred and five refuges have completed CCPs—or about 37% of required units (analysis as per mid-2207). Although the pace of CCP completion has accelerated significantly over the past few years, the Refuge System is slightly behind schedule in terms of meeting its CCP completion target. In April 2007, the Refuge System began implementing the 2012 Plan, an Action Plan to Meet Our Legislative Mandate, which lays out a series of actions intended to ensure that all required CCPs are completed by 2012. Overall, refuge managers have found CCPs to be a useful tool for clarifying objectives, guiding habitat management decisions, and clarifying public use decisions.

As per the MSI State Fish and Game Agency Survey: 94% of state agencies agreed or strongly agreed that they had been provided an opportunity to meaningfully participate in the CCP process; 95% of state agencies agreed or strongly agreed that their participation in the CCP process had improved their communication and coordination with the Refuge System.

SOG 10: Strategically Grow the System.

Ineffective: This objective was rated ineffective for a number of reasons, including: the rate at which land has been added to the NWRS has declined significantly over the past five years; land purchased by the Refuge System often does not match the priorities identified by the NWRS' Land Acquisition Priority System, especially over the past few years; and the current DOI-managed land appraisal process that the NWRS uses is ineffective and cannot be relied upon to produce timely or accurate appraisals, resulting in available land deals being lost.

SOG 11: Reduce Wildfire Risks and Improve Habitats.

Effective: This objective is rated "Effective" as a result of the systematic planning and execution by which the NWRS utilizes prescribed fire to improve wildlife habitat and reduce fuels loads and also for the Refuge System's ability to fight and suppress wildfires. Where refuges have the qualified staff and budget, the high level of planning, training, and coordination results in application of prescription fire to improve and maintain habitats, reduce fuel loads, and suppress unwanted wildfire. Based on MSI surveys and interviews, it appears that approximately one-half of the NWRS has the resources it needs—both budget and personnel—to use fire as a habitat management tool. For other units, issues of staffing, available budget, the growing percentage of Wildland Urban Interface lands, and the location of refuges relative to other fire resources impair the system's ability to promote prescription fire while proactively addressing fuels availability and effective wildfire suppression.

SOG 12: Promote and Enhance Organizational Excellence.

Partially Effective: The Refuge System has introduced a number of new management and planning systems over the past several years, including a medium-term strategic plan, activity-based costing, RAPP work planning and reporting systems, and refuge-level comprehensive conservation planning. The Refuge System is also currently undertaking a Workforce Planning exercise to help better balance personnel and operational expenditures and to prioritize staffing and programs in consideration of declining budgets. The RAPP system has enabled the NWRS to better track and report on national-level accomplishments and the budget rebalancing exercise will, over time, provide managers greater flexibility to address local priorities. The RAPP system, however, has not proved useful to analyzing program effectiveness nor is it used for program decision-making. In addition, there is significant inconsistency within the Refuge System in how policies and programs are implemented across regions. In particular, there is a great deal of variance in basic business management practices, such as budgeting, annual work planning and the use of station reviews/evaluations.

Principal Recommendations

This report contains specific recommendations for improving the effectiveness of the Refuge System in each of the individual strategic outcome goal sections. A brief summary of some of the recommendations most likely to improve performance are presented below.

The Law Enforcement program needs increased funding: There is a severe shortage of full-time law enforcement officers that can only be addressed by hiring additional full-time law enforcement officers—moving from current levels of around 200 full-time officers to at least 400 full-time officers. Implementation of this recommendation will require substantial resources, but an acceptable improvement in

law enforcement coverage is of fundamental importance to the on-going effectiveness of the Refuge System.

The Refuge System should find a way to increase policy and program consistency across regions and between refuges: Part of this process could include standardizing budget development, work planning, reporting and evaluation requirements. Another aspect of this recommendation is the need to develop a clear point of authority and process for ensuring greater policy consistency.

Reduce administrative and reporting requirements: The Refuge System should strive to reduce administrative and reporting requirements—particularly for smaller refuges (seven or fewer staff).

Review the Need to Hire Additional Biologists: As noted in the conclusion section, in part, the Refuge System is unable to fulfill its commitment to manage refuges using an adaptive management process because of a shortage of biologists (approximately 20% of the Refuge System's workforce are biologists). It is recommended that the Refuge System review the adequacy of its biology workforce as compared to system needs. The White Paper produced for the Conservation in Action Summit recommended that biological teams be added to the top 50 refuges. An assessment should be undertaken to determine the degree to which this has happened.

Biological monitoring and inventory work needs to be increased and a more consistent approach should be developed and implemented: The effort of developing a system-wide geographic monitoring capability should be continued and provided increased emphasis. For example, efforts should be made to build upon the Refuge Lands Geographic Information system (RLGIS) and accelerate and adequately resource the implementation of the Strategic Habitat Conservation Initiative. The Refuge System's challenge is to better define high-priority system-wide needs, identify best practices that meet these needs, and replicate these systems in an increased number of locations.

Develop a water strategy: The Refuge System should develop an overall strategy and management structure to more effectively assess and address water management issues. Steps to develop such a program would include appointing a Water Resources Coordinator and developing a policy, or at least a defined process, for how refuges should assess and manage water rights. As the Refuge System reviews the need to bolster its approach to water management it could also take the opportunity to review other program and issue areas that may benefit from increased attention, such as the impacts of climate change and its influence on how the Refuge System should be managed.

Develop consistent and improved refuge websites: Develop a single website format/architecture for each of the refuge unit's websites. There are several options available in terms of the approach used to manage refuge websites; however, the most efficient option would likely be to centralize the function in a single office or under a single contract.

Prioritize visitor services: In light of high public demand for wildlife-dependent recreation and the Refuge System's limited and stretched budgets, the Refuge System should prioritize the public use services it will offer and provide some guidance to refuges and regions as to how limited resources should be allocated among the various wildlife-dependent recreational activities. Particular attention should be given to better defining and supporting environmental education and interpretation programs, where such programs are appropriate and of high utility.

Strengthen the Refuge System's strategic growth program: The Refuge System should develop a Land Acquisition Policy and a corresponding strategy to guide expansion of the system. It is recommended that the land acquisition policy/system be developed to be consistent with the Fish and Wildlife Service's Strategic Conservation Habitat Initiative, a geospatial system being adopted by the Service to identify and monitor conservation priorities. In addition, the Refuge System should engage in a discussion with the Department of Interior to enable it to improve the process it uses to appraise potential real estate transactions as the current Department of Interior mandated Appraisal Services Directorate (ASD) system is ineffective.

Redesign the RAPP reporting system: This system should be redesigned based on a clarification of its purpose. If the system is to remain primarily an external reporting tool—for reporting to FWS, DOI, OMB, and Congress—then the system should be substantially simplified to focus on areas of key interest and the number of indicators tracked should be significantly reduced (by at least 50-60%). However, the RAPP system would be most useful to the Refuge System if it were redesigned to provide information that could help inform strategy and management decisions, which is not currently the case. This will require revising the system and

also instituting practices to review and analyze the data for management decisions, e.g. an annual strategy and performance review workshop.

It is also recommended that the Refuge System disaggregate reporting data between the Alaska region and the rest of the system. Because approximately 80% of all refuge land is in Alaska, and more than 90% of this land is classified as wilderness, aggregating Alaska performance data with that from the rest of the Refuge System provides a distorted picture of the overall system's condition, needs and performance accomplishments.

Develop a knowledge management program: The NWRS should implement a Knowledge Management System to foster information sharing, promote learning and to ensure that best practices are more widely disseminated and adopted. Consideration should be given to creating a dedicated Knowledge Management Unit, which would be responsible for program reporting (RAPP), archiving documents, managing evaluations, disseminating lessons and best practices, and responding to external information requests (together with public relations staff). The Unit's purpose would be to improve performance analysis and reporting and to raise the quality level of implementation practices across the Refuge System.

Ms. BORDALLO. I thank you very much, Mr. Callihan, and I thank you for your very thorough evaluation of the Refuge System.

At this time I would like to introduce a Member of the Subcommittee, the gentleman from Wisconsin, Mr. Kind, who is the Co-Chair of the House National Wildlife Refuge Caucus and a co-requester of the GAO investigation, along with Chairman Rahall and myself.

At this time I would like to have Mr. Kind make a few opening remarks.

STATEMENT OF THE HONORABLE RON KIND, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WISCONSIN

Mr. KIND. Thank you, Madam Chair. I won't be long, but I do want to thank the panel for your testimony here today. I think this is an important and timely hearing.

I want to express my appreciation for the work that GAO did, but also the cooperation that Fish and Wildlife and the Refuge System gave to GAO in the production of this report.

Many of us are aware that the Fish and Wildlife Service conducted an independent evaluation to see whether the refuge was meeting the objectives, and Director Haskett was kind enough to come up on the Hill and brief many of us on an individual basis. We appreciated that feedback.

But we do face some big challenges. It is one of the reasons many of us formed this bipartisan Refuge Caucus in Congress, given the importance of the issue, and we are looking for a plan to move forward. Many of us have been especially focused on the funding challenge that we see and whether we need to create a new paradigm and a new way of meeting the funding needs that we are obviously falling short on.

Like so many of us around here, we have multiple obligations, so I might have to bounce back and forth to a couple other hearings that are taking place too, but I have read many of your testimony here today and look forward to the testimony and hopefully will have a chance later to ask a few questions.

Thank you, Madam Chair.

Ms. BORDALLO. I thank the gentleman from Wisconsin, Mr. Kind.

I would now like to invite Mr. Kurth to testify on behalf of the U.S. Fish and Wildlife Service.

**STATEMENT OF JIM KURTH, ACTING ASSISTANT DIRECTOR
OF THE NATIONAL WILDLIFE REFUGE SYSTEM, U.S. FISH
AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR**

Mr. KURTH. Madam Chairman and Members of the Subcommittee, I am Jim Kurth. I am the Acting Assistant Director for the National Wildlife Refuge System with U.S. Fish and Wildlife Service. I appreciate the opportunity to be here today to testify on the management and the performance of the National Wildlife Refuge System.

As the Subcommittee is aware, the Refuge System is the world's preeminent system of public lands devoted to the protection and conservation of fish, wildlife and their habitat. It includes more than 97 million acres and spans half the globe, and it receives nearly 37 million visitors each year.

We have heard from the GAO on their report of the changes in the Refuge System funding from 2002 to 2007 and how those changes affected habitat management and visitor services. You have also heard from Management Systems International about their independent evaluation of the effectiveness of the Service in meeting the 12 goals in the Refuge System strategic plan.

The draft GAO report found that core funding for the Refuge System increased each year from 2002 to 2007, but when inflation is considered funding for the Refuge System actually peaked in Fiscal Year 2004 at about \$391 million. It was 2.3 percent below that peak in 2003. In other words, funding for the Refuge System from 2002 to 2007 was not maintaining its purchasing power.

The Refuge System has managed this budget by effectively shifting its resources at both the regional and field station level so we could continue our mission critical work of protecting habitat and delivering services to our visitors at our highest priority stations. Unfortunately, the strategic decisions came at the tradeoff of not being able to deliver these functions as effectively at lower priority stations.

We generally agree with the findings in the MSI report, and we offer these observations: The finding in the MSI report that the Refuge System was ineffective in refuge law enforcement is of greatest concern. We have made refuge law enforcement a top priority for the system. We have fallen short of our goal to reduce dependency on our dual function officers by replacing them with full-time officers. Refuge law enforcement remains one of the keenest challenges the Service faces today.

We are also concerned that our performance is only partially effective in our core mission area of conserving fish, wildlife and their habitats. We are not really surprised at that finding, though, given the complexity and the diversity of the resource challenges we face today. The Service will focus heavily on addressing the report's recommendations on how to improve our performance in this area.

We appreciate the fact that MSI's evaluation found our volunteer program and community partnerships to be highly effective. We have grown our volunteer workforce from 1980 at least 5,000 to more than 32,000 today. They contribute 1.5 million hours worth more than \$25 million. These citizen conservationists greatly enhance the wildlife conservation and visitor services programs on

refuges. Without them we could not effectively fulfill the Refuge System mission.

I would like to acknowledge the work of this committee in enacting the Volunteer and Community Partnership Enhancement Act of 1998. This law really fueled the rapid growth of our friends organization from 75 in 1994 to more than 250 today.

We have taken other innovative approaches to enhance our effectiveness and stretch our dollars. We have established a clear program that sets priorities for National Wildlife Refuges. If budgets do not keep pace with increasing cost, we eliminate positions at lower priority stations and focus our resources on the highest priority stations.

The Service believes it is essential for refuge managers to have adequate funding to cover operational costs, provide training and fund priority projects. We consider this management capability an essential component in individual field station budgets. From 2004 to 2007, we eliminated 305 permanent positions on refuges to assure we maintain this management capability on priority refuges. Today, refuge managers are better able to plan and implement projects than they were a few years ago.

The MSI report ended in 2007. I would like to note that in 2008 Congress appropriated a \$36 million increase in refuge funding. We believe if the reviews had included 2008, they would have seen we have improved effectiveness in several areas that they considered. For example, we have hired an additional 20 full-time law enforcement officers and have ensured that every refuge has its targeted level of management capacity funding.

In conclusion, we agree with many of the findings of the MSI report and plan to implement a number of its recommendations. We wish that an independent review would have found that we were highly effective in meeting all our goals, but sometimes we have to acknowledge that we can't accomplish everything that we would like to.

Director Hall has provided clear leadership, insisting we set priorities and make difficult decisions. We are proud to have kept the list of things we don't get done much shorter by enlisting volunteers in communities and creative partnerships.

We believe the reports discussed today can be important tools that help the Service better deliver the mission of America's National Wildlife Refuge System.

Madam Chairman, that concludes my prepared remarks, and I am happy to answer questions.

[The prepared statement of Mr. Kurth follows:]

Statement of James Kurth, Acting Assistant Director, National Wildlife Refuge System, U.S. Fish and Wildlife Service, Department of the Interior

Chairwoman Bordallo and Members of the Subcommittee, I am James Kurth, Acting Assistant Director of the National Wildlife Refuge System (Refuge System) of the U.S. Fish and Wildlife Service (Service). I appreciate the opportunity to be here today to testify on evaluations of the National Wildlife Refuge System's performance.

Your invitation asked that we comment on a recent report developed by the General Accounting Office (GAO) at the request of Congress that focuses on Refuge System funding from 2002 to 2007. We have had the opportunity to review a draft of the final version of this report and are currently developing an official response.

Therefore, we are unable to provide formal comments on that GAO report at this time.

Recently a report was prepared by Management Systems International (MSI) at the request of the Service in response to a need identified by the Administration's Program Assessment Rating Tool (PART), to conduct independent evaluations of the Refuge System program's effectiveness. PART is a management tool used by the Executive Branch to assess the performance of federal programs and to drive improvements in program performance. The PART evaluation includes questions that ask whether federal programs periodically undergo independent reviews of their performance. The MSI report was commissioned to address this issue. The Service agrees with the majority of the conclusions in the MSI report, as detailed below, and plans to follow a number of its recommendations for improving the Refuge System.

The Service takes this report very seriously. We look at the report as a healthy exercise in objectively reviewing the Refuge System and as a tool to provide us with feedback on both the strengths and weaknesses of our operations. Consequently, the Service is already moving forward to use the findings and recommendations in the report in constructive ways to improve the Refuge System and better fulfill its mission.

National Wildlife Refuge System

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management and where appropriate, restoration of the fish, wildlife and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. The Refuge System is the world's preeminent system of public lands devoted to protection and conservation of fish and wildlife and their habitats.

Today, the Refuge System receives over 36 million visitors every year and includes over 96 million acres of land and water spanning more than half of the globe. If a line was drawn from Guam National Wildlife Refuge in the Western Pacific Ocean to Green Cay National Wildlife Refuge in the Virgin Islands, that line would be about 9,500 miles long, east to west. A line drawn from Arctic National Wildlife Refuge at the top of Alaska to Rose Atoll National Wildlife Refuge in American Samoa would be about 5,000 miles, north to south. The Refuge System is a geographically diverse land, coastal and ocean conservation network. Refuges vary in size from the tiny half-acre Mille Lacs Refuge in Minnesota to the massive 19 million acre Arctic National Wildlife Refuge in Alaska. In total, the Refuge System contains 548 refuges and 37 wetland management districts.

The Refuge System's 2008 operations and maintenance budget of \$434 million funded the work of more than three thousand employees operating at more than 300 staffed offices around the world. As expected, our workforce contains many biologists and professional wildlife managers, but also contains professional educators, law enforcement officers, heavy equipment operators, fire fighters, real estate appraisers, business managers, and more than a few pilots and boat captains. From a budgetary standpoint, the Refuge System must be viewed as a large organization that requires many diverse and specialized functions to operate effectively.

To fully understand the purpose of the Refuge System, we must also remember why it was created. President Theodore Roosevelt established the first refuge in 1903 when he reserved Florida's Pelican Island as a place where nesting birds would be protected from overexploitation. President Roosevelt was a bold conservationist, and in his autobiography he wrote proudly of establishing 51 "National Bird Reservations" during his Presidency. Nearly all of his reservations are now units in the Refuge System. In regard to this work, Roosevelt remarked:

"The creation of these reservations at once placed the United States in the front rank in the world work of bird protection. Among these reservations are the celebrated Pelican Island rookery in—Florida;—the extensive marshes bordering Klamath and Malheur Lakes in Oregon;—and the great bird colonies on Laysan and sister islets in Hawaii, some of the greatest colonies of sea birds in the world."¹

President Roosevelt foresaw that saving places where wildlife was abundant would make the United States a world leader in conservation and make our Nation wealthier. Our ability to conserve wildlife is still an important part—and an important symbol—of the American spirit. The Refuge System thus represents places where habitat and wildlife are so rich that it is in the American public's interest to ensure those habitats and wildlife are conserved for present and future generations.

¹ An Autobiography by Theodore Roosevelt. Published by Macmillan, 1913.

The Refuge System is a source of pride in the American consciousness. Evidence of this pride can be seen in the number of volunteers and Friends organizations formed to help local refuges function. People understand the value contained in National Wildlife Refuges and as a result every year more than 30,000 citizens volunteer their time to help their local refuges. The monetary value of their work last year alone was calculated at more than \$25 million. The Service is indebted to these volunteers for their hard work and support for the Refuge System.

The Management Systems International (MSI) Report

The Service contracted with Management Systems International (MSI) to complete an independent evaluation of the Refuge System in response to a need identified through the Administration's Program Assessment Rating Tool (PART). The PART is a management tool used by the Executive branch to assess the performance of federal programs and to drive improvements in program performance. The PART helps inform budget and management decisions and identify actions to improve program results. The purpose of PART assessments is to review overall program effectiveness, from how well a program is designed to how well it is implemented and what results it achieves. As such, the PART examines those factors within the control of the program as well as factors that may influence the program. The PART asks programs whether they periodically undergo independent reviews of their performance. The MSI report was commissioned by the Service to address this issue for the Refuge System program.

In order to make the report as valuable as possible, the Service asked MSI to ensure that the report was independent and objective. We also facilitated surveys of our staff, provided MSI with information in our data systems, and reviewed their recommendations for feasibility, but did not provide feedback on whether we agreed with MSI's findings or recommendations. The final report, entitled "An Independent Evaluation of the Effectiveness of the U.S. Fish and Wildlife Service's National Wildlife Refuge System" took two years to complete. It contains what we believe is a very comprehensive and objective evaluation of the Refuge System's strengths, weaknesses, performance and information gaps. It concludes with a summary rating of how effective the Refuge System is with respect to each of twelve strategic goals identified in the National Wildlife Refuge System Strategic Plan. The Service does not agree with all the findings and recommendations in this report, but we agree with many and are already moving forward to address them.

The twelve strategic goals evaluated in the MSI Report are identified in the National Wildlife Refuge System Strategic Plan. They primarily align with our functional areas. They include:

- Conserve, manage, and where appropriate, restore fish, wildlife and plant resources and their habitats
- Provide quality environments and adequate water
- Ensure that unique values of wilderness, other special designation areas, and cultural resources are protected
- Welcome and orient visitors
- Provide quality wildlife-dependent recreation and education opportunities
- Facilitate partnerships and cooperative projects to engage other conservation agencies, volunteers, Friends groups, and partners in the Refuge System mission
- Protect resources and visitors through law enforcement
- Provide infrastructure and equipment adequate to support mission and maintain it in good condition
- Complete quality and useful comprehensive conservation plans on schedule and with full engagement of partners
- Strategically grow the Refuge System
- Reduce wildfire risks and improve habitats
- Promote and enhance organizational excellence

In short, the report concludes that the Service is "highly effective" in one strategic goal, and "effective" in four others. The report also finds that we are "partially effective" in four goals, and "ineffective" in two. MSI concluded that they were unable to evaluate the goal of providing quality environments with adequate water because of a lack of information.

The Refuge System was found highly effective in the goal of facilitating partnerships and cooperative projects to engage others in our conservation work. The evaluators looked at how Refuge System staff work with volunteers, Friends groups, State partners, nongovernmental organizations (NGOs) and other agencies and found that we do a very good job of developing these relationships and using them to help accomplish the Refuge System mission. We are especially proud that the results from the survey of the state wildlife agencies—some of our most important

partners—found that 88 percent of state agencies rated their relationship with individual refuges between good and excellent. Similarly, 93 percent of all our partners, which includes State agencies as well as NGO's and Friends organizations, rated the quality of their relationship with individual refuges between good and excellent. We feel these are impressive results for an organization the size of the Refuge System, especially considering the difficult and complex nature of many of our resource management challenges.

For eight of our twelve strategic goals the Refuge System was rated in the mid-range of effective to partially effective. These included some of our most important core functions, such as conserving fish, wildlife and habitat, and delivering visitor services. The Service will focus heavily on addressing these recommendations. These conclusions highlight some of the common challenges we face across the Refuge System, such as: addressing invasive species issues, securing adequate water supplies, and delivering quality educational and interpretive programs. The MSI report is the most complete evaluation we have of those operations, and it makes many detailed recommendations on how the Refuge System might improve our performance in these areas. We have already formed teams of staff to review these recommendations and develop action items to improve our performance in these key areas.

Finally, two strategic goals that were found to be ineffective included law enforcement and strategic growth. The Department of the Interior and the Service have directed numerous reforms in the refuge law enforcement program following two reviews by the Departments Inspector General in 2001 and 2002. The events of September 11, 2001, also added additional focus to our law enforcement program and additional responsibilities related to national security. Most of those reforms are complete. However, the decision to transition away from dual-function officers to a force composed completely of full-time officers has been especially challenging to implement. The Refuge System committed to making this transition and envisioned a way it could be done smoothly without a loss of law enforcement capacity. Unfortunately, the phase-out of dual function officers and a corresponding phase-in of full time officers has not evolved as planned. Nevertheless, we have made refuge law enforcement a top priority for the Refuge System and it remains one of the keenest challenges the Service faces today. For example, in 2008 we used \$3 million of an increase refuge operations funding to provide for twenty new full-time officer positions.

The MSI report also rates the Service ineffective in the area of strategic growth, citing as the primary reason the rate at which land is being added to the Refuge System and the fact that this rate has declined significantly over the past few years. This is not unplanned as we believe that it is appropriate for the Refuge System to slow its rate of land acquisition in a period when the Refuge System is challenged to maintain the acres it already has under its jurisdiction. We believe this is a key to strategically grow the refuge, along with working with partners and increasing support and participation from conservation partners and the public. The MSI report looked solely at the physical growth aspect of the goal. We are cognizant of that fact that the cost of land changes, and in those situations where we need to acquire additional land to complete a refuge or expand a refuge that is located in a biologically rich location, our we must use our various authorities to our fullest ability with the tools we have. The Refuge System does not have to own every acre that needs protection, and we are working with our partners to use innovative approaches to land protection. For example, for years the Service has worked with conservation partners to look across biological landscapes and make collaborative decisions about what organization can most effectively protect what area. The Papahānaumokuākea Marine National Monument created in the Northwest Hawaiian Islands in 2006 is a recent example. The Refuge System is a major partner in management of the National Monument, and in tandem with other federal agency and state partners we help protect more than 139,000 square miles of marine habitat—a much bigger accomplishment than any one organization could ever hope to accomplish.

U.S. Fish and Wildlife Service Perspectives

The MSI examined trends in the annual operating budgets of the Refuge System and the impact on Refuge System performance. Not surprisingly, some broad patterns emerged regarding the Refuge System. These broad patterns are important to consider but also need to be carefully evaluated because they provide one view of the trends which have been the context for many of our management decisions over the past few years.

The MSI report references statistics that compare funding to FY 2003 which was the Centennial of the Refuge System. Additional funds were provided by Congress

to the Refuge System in FY 2003 and FY 2004 related to the Refuge System Centennial. Specific activities and projects were funded and were never meant to establish a new long term funding operations budget baseline. A better comparison would have been FY 2001 or the beginning of the Administration. When comparing refuge funding in FY 2008 to the FY 2001 appropriated level of \$300 million, adjusted for inflation, the Refuge System budget has outpaced inflation by \$75 million or 21 percent. This is one of the largest increases in the Service for any program.

For the past two years, the Refuge System has been reexamining its workforce and realigning staffing to better meet today's challenges in wildlife conservation. The Refuge System has already undertaken a number of steps to better deliver its mission in a performance-driven, priority-based manner. These steps include:

- Strategic planning at the Department, Service, and Refuge System level;
- Targeted increases for the Refuge System's highest priorities including invasive species control, borderland security, and maintenance at targeted refuges;
- Use of "service zones" for refuge law enforcement and heavy equipment operations; and
- Complexing of individual refuges where appropriate, such as in areas that are in close proximity, rather than dividing staff and resources among each refuge.

The Refuge System analyzed the operational budget for each field station and found that the amount spent on salaries varied greatly, with some field stations spending more than 90 percent of their budget solely on salaries and benefits, leaving limited funding for management flexibility. The Refuge System has determined that the desirable ratio of salaries to management should be around 80:20 based on the particular circumstances at each individual refuge. Within each of the Service's regions, the Refuge System developed a workforce plan with the goal of achieving this desirable ratio in order to best accomplish the mission of the Refuge System. One result of the workforce plans was to prioritize refuges. In some cases lower priority refuges are managed remotely (i.e. without staff on site) and others are managed as part of a larger Refuge Complex. While there have been permanent staff reductions through retirement or attrition, overall Refuge System FTEs have increased by 296 or roughly 11 percent since 2001 in part because of the increased use of temporary staff. Clearly, the input of resources into the Refuge System's conservation efforts are related to the outcomes we measure. Refuge system budgets have focused on funding the highest priorities within among the many needs identified.

We appreciate the fact that MSI's independent evaluation found our volunteer programs and community partnerships to be highly effective. We have grown our volunteer workforce from fewer than 5000 in 1980 to more than 32,000 today. They contribute 1.5 million hours of work worth over \$25 million. Since 1994, we have also grown from 75 community support or "Friends" groups to 250. These citizen conservationists greatly enhance the wildlife conservation and visitor services programs on refuges. Without them, we could not effectively fulfill the mission of the Refuge System.

We have taken other innovative approaches to enhance our effectiveness and stretch our dollars. We have reduced the emphasis on building large, expensive visitor centers and focused on small scale, low maintenance, construction project we call "visitor facility enhancements" or VFEs. These projects include observation platforms, photo blinds, fishing piers, boardwalk trails, and boat ramps and other similar enhancements. These smaller, simpler facilities cost less, make our dollars go farther, and increase the outcomes in our visitor services programs.

Managing the Refuge System through these times has also taught us some important lessons and forced us to rethink how we do business. We have established a clear program that sets priorities for national wildlife refuges. If budgets do not keep pace with increasing costs, we focus our resources on the highest priority areas. We believe it is essential for refuge managers to have adequate funding to cover operational costs, provide training, and fund priority projects. We consider this "management capacity" an essential component in individual national wildlife refuge budgets.

The MSI report ended their analysis in FY 2007. We would like to note that in FY 2008 Congress appropriated a \$36 million increase in refuge funding. We believe that if the review had included FY 2008, the MSI report would have found an improved effectiveness in several areas that they considered. For example, we have hired an addition 20 new full-time law enforcement officers and assured every refuge has its targeted ratio of management capacity funds to salary.

As mentioned above, we believe the MSI report contains some excellent ideas on improving effectiveness of our programs, and we are in the process of developing an action plan that will carefully evaluate how we will move forward with this informa-

tion. The Service is committed to achieving our strategic goals and will set clear priorities for addressing the recommendations in the report.

Conclusion

We have had the opportunity to review a draft of the final version of the GAO report and are currently developing an official response. In regard to the MSI report, we agree with many of the findings of the MSI report and plan to implement a number of its recommendations. We believe the report will be an important tool to help the Service better deliver the mission of the National Wildlife Refuge System to the American public.

The Service has worked hard at all levels to address the circumstances described in the report and has made difficult choices and set clear priorities. We have continued to ensure that the Refuge System remains the world's preeminent system of public lands devoted to protection and conservation by developing a strategy to manage through a period when we had to tighten our belt financially. We have developed and implemented strategic workforce plans to guide these decisions, and refuge managers have acted prudently and prioritized their resources and their work. Many times those decisions were not popular, but we believe they were needed. We will continue to work with our partners, volunteers, Friends groups, and State fish and wildlife colleagues to stretch our dollars and deliver effective wildlife and habitat conservation and visitor services.

The Service greatly appreciates the interest and strong support of Chairwoman Bordallo and Members of the Subcommittee for the National Wildlife Refuge System. Madam Chairwoman, this concludes my prepared statement. I would be pleased to respond to any questions you may have. Thank you.

Ms. BORDALLO. Thank you very much, Mr. Kurth. Let me say that notwithstanding the shortcomings outlined in both the GAO and the MSI reports, we very much appreciate your efforts and the efforts of every Federal employee within the Refuge System who labor tirelessly to protect and manage the Refuge System on behalf of the American people.

Mr. Matson, it is a pleasure to welcome you here this afternoon to our hearing or this morning. You are now recognized to testify for five minutes.

STATEMENT OF NOAH MATSON, VICE PRESIDENT FOR LAND CONSERVATION, DEFENDERS OF WILDLIFE

Mr. MATSON. Thank you, Madam Chairwoman and Members of the Subcommittee. I am Noah Matson, Vice President for Land Conservation at Defenders of Wildlife. Thank you for inviting me to testify today.

I have personally visited dozens of refuges across the country over the last few years and have followed National Wildlife Refuge policy and appropriations for more than a decade. It is clear to me that persistent budget shortfalls, coupled with lack of progress and important policies, have led to a troubling erosion of the Refuge System's ability to achieve its conservation mission. I generally concur with the findings of the reports and details. Some of that is in my written testimony.

I first want to talk about the funding issue since that is essentially the hearing today. Before I get into some stories, I just want to mention that Congress is currently working on the continuing resolution for the Federal budget, and within there, there is some hurricane supplemental funding.

As you may or may not know, at least three refuges were basically wiped out in Hurricane Ike. The Texas Chenier Plain Refuges, which includes McFaddin, Anahuac and Texas Point, lost everything in that hurricane. It was a direct hit. I encourage Members

of the Subcommittee and their colleagues to support funding to restore those refuges from that hurricane.

In terms of MSI's overarching finding that the dramatic decreases in actual purchasing power in recent years has led to the Refuge System not being able to "maintain its level of operational activity from one year to the next, requiring that services and personnel be cut back," I just want to provide a story that nowhere is this more apparent than the Supawna Meadows National Wildlife Refuge in New Jersey.

This refuge protects about 3,000 acres of coastal marshland along the Delaware River and is a really important foraging habitat for the largest rookery of wading birds north of Florida. The refuge enjoys an extremely dedicated and passionate refuge friends group. In 2005, that friends group had their dreams come true with a brand new visitors center.

That visitors center never opened because soon after that happened the Supawna Meadows was part of this workforce restructuring plan, and all the on-site staff were removed from that refuge and now it is managed by Cape May National Wildlife Refuge, some 60 miles away.

Without on-site staff there is nobody to lead or coordinate the dedicated volunteers, and that brand new visitors center is collecting dust and volunteers are largely sitting idle. This is the face of the budget crisis facing the Refuge System.

A year ago one of my staff visited Crystal River National Wildlife Refuge in Florida. Well, he tried to visit. Instead, he was welcomed with a sign that read: Due to staff and budget reductions, coupled with increasing workload per staff member, we may not always be open for visitation. This was a sign on the refuge door.

The refuge shares one law enforcement officer spread over 100 miles of coastline, managing a whole complex of refuges, including a large waterfowl hunting program, the endangered whooping crane program, beachgoers and islands in Tampa Bay, leaving little time to patrol the waters of Crystal River. Without this law enforcement presence, boaters and swimmers regularly harass endangered manatees, a problem so bad you can actually see videos of it on YouTube.

I think all the Members of the committee understand the funding issues of the Refuge System are real and are seriously compromising its mission. I look forward to working with the committee on solutions to this crisis.

I next want to talk about climate change. Now, I know this wasn't a focus of this hearing, but I found it kind of a glaring omission from some of these reports that came out today.

Now, I do not fault MSI for not doing this because they were following the strategic goals of the Refuge System, and that is where the problem lies. This Administration has placed no emphasis on addressing the profound impacts of climate change to the point where there is not even a national goal in the Refuge System to address these needs.

The Refuge System is particularly vulnerable to climate change. Over 160 coastal refuges are vulnerable to sea level rise. The bulk of the Refuge System's acreage is in Alaska. We have already seen glaciers melt or the wetlands dry up, tree lines rise.

In addition, the Prairie Pothole region of the country, America's duck factory and home to many, many refuges, is expected to lose half of its wetlands and ponds over the coming century. This is a very real danger to the Refuge System which requires proactive planning to prevent the worst damage from happening and ensure that the conservation investments we make today are climate smart.

I fear refuges like Supawna Meadows and Crystal River, already unable to address today's conservation challenges, will fall further from achieving their conservation purposes in the future. I encourage Congress and the Administration to work on solutions to this problem.

The National Wildlife Refuge System is critical to the future of wildlife and wildlife focused recreation in America. As recommended by the MSI report, refuges should become fulcrums for influencing conservation actions and larger landscapes.

With an appropriate investment of resources and sound policy direction, I believe the Refuge System can be a fulcrum for conservation across the landscape to meet the conservation needs of today and the serious challenges of climate and other environmental changes ahead.

On behalf of Defenders of Wildlife, I thank you for the opportunity to comment today and look forward to the questions.

[The prepared statement of Mr. Matson follows:]

**Statement of Noah Matson, Vice President for Land Conservation,
Defenders of Wildlife**

Madam Chairwoman and members of the subcommittee, I am Noah Matson, Vice President for Land Conservation at Defenders of Wildlife ("Defenders"). Founded in 1947, Defenders of Wildlife is a non-profit, public interest organization with over 1.1 million members and supporters across the nation and is dedicated to the conservation and restoration of wild animals and plants in their natural communities.

I greatly appreciate this opportunity to discuss the recent budget trends of the National Wildlife Refuge System. As the only federal land system in the U.S. dedicated primarily to the conservation of wildlife and habitat, the Refuge System is of paramount importance to Defenders and all Americans, especially the nearly 40 million people who visit and enjoy national wildlife refuges from Guam to Maine, from Puerto Rico to Alaska, each year. These visitors generate more than \$1.7 billion in annual sales to local economies, resulting in employment for more than 27,000 U.S. workers.

Defenders has been substantively involved in National Wildlife Refuge System law and policy for decades, and actively worked for passage of the landmark National Wildlife Refuge System Improvement Act of 1997 ("Refuge Improvement Act"). Defenders has also been actively involved in the formulation of national policy guidance issued since passage of the Refuge Improvement Act, including policies addressing planning, compatibility and appropriateness of secondary uses, biological integrity, diversity and environmental health, wilderness, and recreational use. In addition, Defenders has long been a leader in the Cooperative Alliance for Refuge Enhancement (CARE), a diverse coalition of scientific, conservation, and sporting organizations representing more than 14 million Americans. CARE works with Congress and at local, regional, and national levels to raise awareness of the critical budget crisis now facing the Refuge System.

After following Refuge System appropriations for nearly a decade, coupled with extensive research and visits to dozens of refuges, it is clear to me that persistent budget shortfalls coupled with lack of progress on important policies have led to a troubling erosion of the Refuge System's ability to achieve its wildlife conservation mission and public outreach objectives. Recent assessments from the Government Accountability Office (GAO) and Management Systems International (MSI) strongly validate these observations. These reports have shed much-needed light on challenges that have been well known by refuge supporters for years. It is my sincere hope that discussion of their conclusions and recommendations will inform and

guide meaningful changes necessary to reinvigorate our legacy to wildlife, the National Wildlife Refuge System.

Eleven years ago, Congress passed the sweeping National Wildlife Refuge System Improvement Act to reform a system of lands starving for a mission, critical management standards, and funding. Congress had the foresight to write a timeless piece of legislation that provides direction even in a changing world. Congress wanted the Refuge System to be managed using modern scientific programs. Congress wanted the status and trends of fish, wildlife, and plants to be monitored to detect changes, measure progress and to adapt management. Congress understood the importance of adequate water quality and quantity to the Refuge System. Congress understood the importance of strategically growing the Refuge System to meet its mission and “to contribute to the conservation of the ecosystems of the United States.” Finally, Congress required each refuge to have a comprehensive conservation plan, developed with the input of the American public, to ensure that each refuge was managed in a way to best contribute to the mission of the whole system and to achieve its purpose.

Lack of funding and lack of leadership over the last several years has prevented the Refuge System from fulfilling this promise. According to MSI, the Refuge System is underperforming in most of these areas, inhibiting the Refuge System from addressing the threats of today, and leaving the Refuge System unprepared to meet the tremendous challenges of climate change.

I will focus my remarks on overall funding for the Refuge System and the ability of the FWS to address climate change, develop quality comprehensive conservation plans, strategically protect additional habitat, conduct inventory and monitoring programs, and maintain adequate water supplies for the Refuge System.

The MSI report included a comprehensive evaluation of many other aspects of refuge management. A comprehensive analysis of the MSI report is included as an attachment to my testimony.

Funding

In June 2008, a report was released by MSI entitled “An Independent Evaluation of the Effectiveness of the U.S. Fish and Wildlife Service’s National Wildlife Refuge System.” This assessment was requested by the Fish and Wildlife Service (“FWS”), the agency that administers all national wildlife refuges. MSI’s goal was to assess and make recommendations for each of the Refuge System’s twelve strategic outcome goals, which were finalized in early 2007. The goals are broad but relate to the Refuge System’s most essential elements of habitat and wildlife conservation, wildlife-dependent recreation, law enforcement, fire management, welcoming and orienting visitors, wilderness management, conservation planning, facilities maintenance, strategic growth, and maintaining organizational excellence.

In September 2008, a report was released by the Government Accountability Office (GAO) entitled “Wildlife Refuges: Changes in Funding, Staffing, and Other Factors Create Concerns about Future Sustainability.” The report details the funding situation for the Refuge System from FY 2002-2007 and elucidates trends at the System level, while emphasizing that particular individual refuges have been more heavily impacted than the national trends might suggest.

In general, I agree with the principal findings of these reports, though there is substantially more story to tell for several of the examined issues. I strongly agree with the MSI Report’s overarching finding that the dramatic decrease in actual purchasing power in recent years has led to the Refuge System’s not being able to “maintain its level of operational activity from one year to the next”, requiring that “services and personnel...be cut back.”

Many of these cutbacks have been truly devastating to our nation’s wildlife refuges. Some of the impacts now being felt across the country include a planned 20 percent reduction in refuge managers, biologists, environmental educators, and maintenance staff, with 350 jobs already eliminated and another 250 on the chopping block; scores of refuges being completely de-staffed; a crippling backlog of \$3.5 billion in shelved operations (\$1 billion) and maintenance (\$2.5 billion) projects; and visitors that increasingly find closed visitor centers and access roads, dilapidated observation platforms, overgrown hiking trails, eliminated visitor education programs, and cancelled hunting or fishing events. These same visitors will almost assuredly not encounter a law enforcement officer, as a deficiency of more than 500 refuge officers has led to a rise in illegal activities such as poaching, drug cultivation, sex crimes and various types of natural resource violations.

GAO found that by FY 2007, after adjusting for inflation, core funding was actually 4.3% above FY 2002 levels. However, viewing funding trends in this way does not fully capture the actual effect of essentially flat budgets on the Refuge System, or its actual budgetary needs. In recent years, the Refuge System needed an addi-

tional \$16 million each year simply to keep pace with rising fixed costs, such as salary adjustments, fuel, utilities and rental space. Recently, in response to soaring energy prices, the Refuge System recalculated this annual need to be approximately \$20 million. To put it simply, the Refuge System now needs an additional \$20 million each year simply to pay its staff, put gas in the trucks and keep the lights on. The GAO inflationary adjustment did not address this all-important need and therefore painted a somewhat misleading picture of recent budget trends.

In addition, these numbers mask the enormous needs facing the Refuge System. CARE estimates that the Refuge System needs almost \$800 million per year in operations and maintenance funding to adequately meet its mission. I have included CARE's report, "Restoring America's Wildlife Refuges," as an attachment to this testimony to provide details of CARE's analysis of Refuge System budget needs.

The MSI Report broadly concludes that declining, inadequate budgets coupled with increasing administrative requirements for field personnel has most heavily impacted three areas: the Refuge System's ability to conduct adequate inventory and monitoring work; the grossly understaffed law enforcement program; and the rate of growth of the Refuge System, which the report notes has "declined markedly over the last five years." I agree completely that deficiencies in these areas are seriously hamstringing the Refuge System's potential to deliver on its conservation and public use goals. I would further add, however, that funding shortfalls and glaring administrative neglect in recent years has created a host of other important challenges that warrant congressional attention, many of which I will discuss below.

Climate Change

From the walrus to waterfowl, global climate change is and will have profound impacts on wildlife and the habitats they depend on. Globally, scientists estimate that 30-40% of known species are at increased risk of extinction due to the impacts of climate change under current emissions. And if we fail to curtail our emissions that figure could rise to as great as 70%. In the United States, species have already begun to feel these effects. The Refuge System is particularly vulnerable, with over 160 coastal refuges at risk from sea level rise, and the bulk of the Refuge System's land in Alaska, which has already seen glaciers melt, boreal wetlands dry up, tree-lines move upslope, and warming-aided pests destroy millions of acres of forests. In addition, the Prairie Pothole region of the Dakotas and parts of Montana, Minnesota, and Iowa, America's "duck factory" and home to a large number of refuges, is expected to lose half of its lakes and ponds essential for waterfowl breeding.

It is instructive that the FWS did not ask MSI to evaluate the Refuge System's ability to meet the challenges of climate change. A GAO report released last fall concerning the federal resource agencies' ability to respond to the management implications of climate change found that federal resource agencies, including FWS "have not made climate change a priority, and the agencies' strategic plans do not specifically address climate change." So it is little wonder that the MSI report, which used the Refuge System's own strategic plan as the framework for the evaluation, seemingly ignored how climate change is affecting the Refuge System and failed to assess how existing Refuge System budgets and policies affect the Refuge System's ability to cope with the impacts of global warming.

The GAO report on climate change and federal resource agencies also found that FWS and other agencies lacked "specific guidance for incorporating climate change into their management actions and planning efforts." Finally, that report documented that FWS and other agencies lacked "computational models for local projections of expected changes and detailed inventories and monitoring systems for an adequate baseline understanding of existing local species. Without such information, managers are limited to reacting to already-observed climate change effects on their units, which makes it difficult to plan for future changes."

The failure of the MSI report to directly evaluate these and other factors associated with climate change leaves us with lingering questions regarding how the Refuge System is responding to this critical management challenge. However, the report made important observations related to planning, land acquisition, water quality and quantity, and inventory and monitoring that have direct bearing on the FWS ability to accomplish its mission and meet the environmental challenges facing the Refuge System, from habitat loss to climate change.

While the Refuge System faces enormous funding and policy deficiencies, the System's importance to wildlife will only be magnified as climate change and other environmental problems stress plants and wildlife and compromise habitats. Of all the federal land agencies, the FWS is perhaps best positioned to adapt to changing land-uses and climatic conditions. The Refuge System enjoys broad public support, has great flexibility in acquiring and restoring select habitats, is nested within an agency that wields the essential tools for conserving wildlife across jurisdictional

boundaries, and has a long history of active management that may become increasingly necessary. These positive attributes should be utilized and supplemented by providing the Refuge System with the resources it needs to address serious challenges like climate change, which must necessarily begin with better biological and hydrological monitoring.

I am confident that with Congress's input and oversight, the Refuge System can meet these serious challenges. It is clear that national policy direction is needed for the Refuge System and other federal resource agencies to strategically address the impacts of climate change. It is equally clear that the Refuge System, and its sister agencies, are already facing funding holes so large that a large commitment of additional resources is urgently needed to address the added threat of climate change. I urge Congress to work with the executive branch to meet these dual needs.

Comprehensive Conservation Plans (CCPs)

Comprehensive conservation plans are the chief vehicle for implementing the important provisions of the Refuge Improvement Act. CCPs are the public's chief means for understanding and participating in an individual refuge's management direction. According to the MSI report, the majority of refuge managers regard CCPs as useful tools "for clarifying objectives, guiding habitat management decisions, and clarifying public use decisions." CCPs are an essential and indispensable element of refuge planning, management and decision-making that should not be rushed, but rather developed with the highest possible quality and level of consideration.

The MSI Report notes that many FWS regions are not on pace to meet a congressionally imposed deadline for completion of all CCPs by 2012. To avoid missing the deadline, the Refuge System is working hard to implement a recently finalized plan entitled "2012 Plan, An Action Plan to Meet Our Legislative Mandate." At the same time the FWS has crafted a plan to complete CCPs on time, however, the administration has cut the refuge planning budget in its budget requests in the last few years, and the current planning budget is 14% lower than in FY 2006.

Though the MSI report rated the FWS "effective" at completing "quality and useful CCPs on schedule and with full engagement of partners", there was little basis in MSI's methodology to rate the "quality" of CCPs. Defenders has analyzed and commented on dozens of CCPs over the last ten years, and have found that the quality varies widely, both between FWS regions and within regions. Because CCPs are designed to enhance public understanding of Refuge decision-making, in the future we would recommend that the FWS evaluate stakeholder and public perceptions of CCP quality and utility.

Of particular concern is that climate change is virtually ignored in nearly all CCPs completed to date. This finding is echoed in the 2007 GAO report on climate change and resource agencies. The fact that refuge managers continue to give high utility evaluations to CCPs despite the absence of climate change analysis is perhaps telling.

An analysis of the effects of climate change is a central and required element of refuge planning under the Refuge Improvement Act. For example, the FWS is required during the CCP process to identify and describe the "significant problems that may adversely affect the populations and habitats of fish, wildlife, and plants within the planning unit and the actions necessary to correct or mitigate such problems."

Helping wildlife adapt to a rapidly changing climate, which the Refuge System is well positioned to do with its wildlife-first mandate, will necessarily involve many facets. But thoughtful long-range planning certainly tops the list. Because global climate change is a significant problem that will adversely affect wildlife and habitat and may threaten the wildlife, ecosystems, and natural processes on refuges nationwide, the anticipated effects of climate change and prudent management responses should be carefully considered and described during the CCP process. As such, climate change needs to be added to FWS evaluative criteria.

Land Protection

According to the Forest Service, an estimated 6,000 acres of open space are lost each day, a rate of 4 acres per minute. Congress recognized the need for the Refuge System to protect additional habitat when it passed the National Wildlife Refuge System Improvement Act which directs the Secretary of the Interior to "plan and direct the continued growth of the System in a manner that is best designed to accomplish the mission of the System, to contribute to the conservation of the ecosystems of the United States, to complement efforts of States and other Federal agencies to conserve fish and wildlife and their habitats, and to increase support for the System and participation from conservation partners and the public."

Despite this clear mandate strategic land and water acquisitions have ground to a near halt in recent years. The determination by MSI that the Refuge System has been “ineffective” at strategically growing the Refuge System is, while fully accurate, nonetheless a serious understatement. The MSI Report does an excellent job of cataloguing and summarizing the many ways in which the Refuge System fails in this goal, including problems with databases, political motivations and a bureaucratic mess of an appraisal processes.

The MSI Report finds that the significant decline in land acquisitions in recent years is due in part to political motivations, such as the administration sharply reducing the amount of acquisition funding it requests from Congress. For example, in FY 2008 the administration requested funding for only two properties, despite hundreds of available parcels and an obvious ecological need to buffer or connect existing conservation lands with new acquisitions.

Current development trends threaten to overwhelm the value that refuges and other conservation lands hold for wildlife and ecosystem integrity. Furthermore, current protected areas, including state and federal wildlife refuges and parks, were established in a manner that, at this time, does not benefit the whole of biodiversity or the maintenance of landscape-level ecological processes, as many of America’s natural areas exist as fragmented parcels, surrounded by land or water unsuitable for most wildlife. In addition, with the effects of climate change now bearing down upon already stressed fish, wildlife and plant populations, it is essential that we prioritize strategic land acquisition as the logical means to develop an interconnected system of conservation lands.

MSI observed that the very few parcels that are acquired in recent years typically “[do] not match the priorities identified by the Refuge System’s Land Acquisition Priority System [LAPS].” This is partly due to the fact that the administration is not requesting projects, leaving Congress to make land protection decisions without the benefit of Refuge System priorities. There is also a disturbing level of divergence between acquisition requests made by the Refuge System and the priorities listed in the LAPS system. The MSI Report made clear that this divergence has now progressed to the point where the Refuge System “no longer appears to be using a transparent criteria-based system to prioritize land purchases.” Defenders believes that the Refuge System should develop and then work to implement a prioritization system that emphasizes the acquisition of parcels that contribute to greater habitat connectivity, provide buffers around core habitats, possess adequate water quantity and quality, and work to protect currently under-represented ecosystems and species—all of which should be in the context of climate change.

The MSI report also criticized the land appraisal process, stating it “cannot be relied upon to produce timely or accurate appraisals, [which] causes available land deals to be lost.” Since real estate appraisal responsibilities were removed from the various DOI agencies in 2003 and reestablished at the department level, rising costs and bureaucratic inefficiencies have cost the FWS many land acquisition opportunities. The move was made with the promise of greater efficiency, but since that time costs have doubled and response time has been agonizingly slow. For example, if a landowner wishes to sell property to an interested refuge, they can now expect to wait from nine to eighteen months before a final appraisal is completed. The FWS must first send its request to DOI’s Appraisal Services Directorate (ASD), which in turn accepts bids from a restricted number of contractors for appraisal services. A number of factors have resulted in higher overall cost since the transfer of the appraisal function to DOI, including the self-imposed limitation on the number of bidding contractors that drives prices up, and the higher average salaries of ASD employees. Further, final appraisals have an expiration date, or “date of value”, of one year. So after much bureaucratic paperwork and other delays, the FWS may only have a few months to organize funding and make an offer to the landowner before the appraisal expires. Clearly, this is a broken system in need of serious common-sense reform. The DOI should restore the appraisal function to the agencies for greater efficiency, cost savings, and response time. An added benefit is that staff at the agency level is often more connected with the resource base and more in touch with the lands they are working to protect and the mission they are striving to uphold.

I believe it is of utmost importance for Congress to respond quickly and aggressively to the political motivations that have led to a virtual cessation of land acquisitions for the Refuge System. Unfortunately, this has occurred at the very moment when American wildlife is under unprecedented pressure and in great need of additional habitats to ensure its sustainability and restoration. I recommend that Congress strongly support fully funding the Land and Water Conservation Fund and increasing the price of the Migratory Bird Hunting and Conservation (Duck) Stamp, the two primary land acquisition funding sources.

Inventory and Monitoring Programs

Unique in having a legislative mandate to monitor the status and trends of fish, plants, and wildlife populations, the Refuge System should serve as a model for holistic, science-based monitoring and the development of adaptive management responses. Collecting baseline inventory data and conducting monitoring on every wildlife refuge is essential in identifying conservation targets, detecting environmental changes, identifying the most vulnerable species and habitats, developing objective criteria for prioritizing activities and decision-making, and developing, implementing, and evaluating plans using adaptive management principles. Unfortunately, as the MSI Report shows, the reality is that current inventory and monitoring efforts lack standardization, priority, and funding. According to the report, only 11% of refuge managers surveyed describe current inventory and monitoring efforts as “mostly or fully sufficient.”

The solution to this problem is part funding and part policy. Clearly, the Refuge System would benefit from more biologists. Over 200 refuges have no onsite biologist to speak of. This is a glaring problem for a system of lands designed for the conservation of fish, wildlife and habitat.

However, current inventory and monitoring efforts could be made more effective. As the MSI report recommends, monitoring efforts should be better coordinated and standardized and focus inventory and monitoring “systems toward the management needs of regional priorities.” Some regions of the FWS have begun this process but more needs to be done. In addition, standardization and coordination of inventory and monitoring systems should be accomplished in conjunction with other federal, state, tribe, academic, and private sector programs.

Water

Water is an essential ingredient to all life and, consequently, the life blood of the Refuge System. The MSI Report concludes it is “unable to evaluate” the Refuge System on its efforts to secure adequate water resources because so little information exists on which to gauge effectiveness. It states the System “does not currently operate a well defined and structured water resources program. There is currently no individual or office designated to coordinate the Refuge System’s water rights and water quality activities.” Coupled with the fact that the Refuge System provides no national water policy guidance or standardized monitoring protocol to its land managers, perhaps MSI could have reasonably concluded that the Refuge System is “ineffective” or at the very least, seriously underperforming in its congressionally mandated effort to deliver adequate water quantity and quality to all refuges. Viewed holistically, the Refuge System’s water troubles emanate from a failure to implement sound policy and protocol, but also the inability to adequately address these challenges due to a severe lack of resources.

Compared to other federal land management agencies, the Refuge System typically manages areas that are wetter, lower in elevation, and higher in biodiversity; often freshwater wetlands or coastal marshes. Unfortunately, with increasing water demands from agricultural and urban development, many refuges are struggling to secure enough water to meet their conservation targets. The authors of the Refuge Improvement Act showed foresight in addressing the emerging water crisis on wildlife refuges, a crisis now exacerbated by climate change, intense regional droughts and increasing human demand. The Act unequivocally states that “adequate water quantity and water quality” must be maintained to “fulfill the mission of the system and the purposes of each refuge.”

The Refuge System must develop a national water policy that standardizes protocol for water assessments and helps land managers secure and defend water rights on wildlife refuges. In the face of increasing human demand, droughts, floods, and altered timing and volume of water flows, the Refuge System needs to anticipate and appropriately plan for future water challenges. As part of this planning effort, the Refuge System should secure the hydrologists and equipment, and foster the institutional commitment necessary to thoroughly catalogue existing water use along with current and projected needs. Currently, some FWS regions have no dedicated hydrologists or water monitoring programs at all. With such limited capacity, it is not surprising that many wildlife refuges, particularly in the East, have not documented current water usage or projected future needs. Documentation will be absolutely critical if refuge water rights are legally challenged as water supplies dwindle. Thorough documentation of usage is essential not only to defend one’s rights, but also to assert what refuges actually need. Some of the necessary inventory and monitoring can be done in conjunction with partners, but all data needs to be standardized and accessible in a centralized database.

Consideration of water quality and quantity should be a component of all future land and water acquisitions. Priority should be given to parcels with high-quality

habitat that also have senior water rights, where possible. It would also be prudent to identify overlap between willing sellers of water rights and areas where the Refuge System has identified a need for additional water. Of course, an inventory and monitoring of related factors will be necessary first. The DOI should encourage and provide guidance to all its land managers to work with neighboring landowners and upstream users on various water measures, including water conservation techniques and the improvement of water quality through, for example, the reduction of contaminants or sediment inputs. In some isolated cases, wildlife refuges themselves adversely impact water quality by releasing large volumes of nutrient-laden waters from freshwater impoundments into larger water bodies. For the FWS to achieve its goal of managing refuges within a landscape-level context, the Refuge System should develop habitat management strategies and population targets that minimize pollution of local watersheds.

Conclusion

One can look at the findings of the MSI and GAO reports as either half empty or half full. When you realize all the potential that is being lost due to budget and policy neglect by the current administration, it is certainly half empty. But when you think about how much the dedicated workforce is actually doing to keep this system together for wildlife, it is amazing what they have been able of accomplish on so little. The current situation, however, is unsustainable.

The Refuge System is truly at a crossroads. By next year, if funding does not turn around, the Refuge System is scheduled to lose twenty percent of its workforce, when compared to staffing levels just four years ago. But these losses are not of expendable federal bureaucrats; these are refuge managers, wildlife biologists who monitor endangered species such as Florida manatees, red wolves, and whooping cranes, interpretive rangers who teach and guide schoolchildren, and essential maintenance personnel who keep each refuge functioning smoothly. Without these people, America's Refuge System must continue to cut educational programs, eliminate hunting and fishing access, close offices, allow equipment and visitor infrastructure to fall into disrepair, and significantly reduce management and monitoring of wildlife and non-native, invasive plants.

When wildlife refuges have insufficient staff, it affects activities outside the refuge boundaries. Refuge staff are unable to dedicate sufficient attention to threats beyond refuge boundaries, such as huge rafts of incoming marine debris, water rights issues, upstream water contamination, adjacent landfill sites, or planned commercial developments. Further, when staff levels are reduced to only one or a few staff per refuge, those people are unable to partner with other interested stakeholders, which dramatically and adversely affects volunteer involvement and leveraging of additional dollars. For example, consider that the reasonably well-staffed San Luis Refuge Complex in central California often triples its annual budget through creative partnerships. With these extra resources, more trees are getting planted, invasive species are being eradicated, and refuge staff are better able to closely monitor external threats. This situation demonstrates how much is possible when sufficient staffing is available to capitalize on partnership opportunities, and how much is being lost at other wildlife refuges without adequate staffing.

The National Wildlife Refuge System is critical to the future of wildlife and wildlife-focused recreation in America. Refuges provide wildlife with comparatively intact tracts of land that serve as a "refuge" from human development and other pressures, and can serve as the backbone of a wider effort across the landscape to protect, restore, and connect wildlife habitat. As recommended by the MSI report, refuges should "become fulcrums for influencing conservation actions in larger landscapes."

With an appropriate investment in resources and sound policy direction, I believe the Refuge System can be a fulcrum for conservation across the landscape to meet the conservation needs of today, and the serious challenges of climate and other global environmental changes ahead. In addition to dramatic increases in funding, I have outlined a number of actions that will improve the management of Refuge System including:

- Establishing a national strategy for the FWS and other resource agencies to address the impacts of climate change on wildlife and natural resources.
- Ensuring the quality of CCPs does not suffer in order to meet the Congressional deadline for their completion, and developing guidance for incorporating climate change into CCPs.
- Developing a strategic growth policy for the Refuge System to prioritize land protection efforts in the context of climate change and other threats to wildlife and habitat and increasing funding from the Land and Water Conservation Fund and Migratory Bird Conservation Stamp to support land protection.

- Standardizing and coordinating inventory and monitoring programs so they provide needed feedback on management actions and environmental change.
- Establishing a national water resources policy to ensure that the Refuge System is able to maintain the water quality and quantity it needs to accomplish its mission in the face of increased industrial, agricultural, and residential water withdrawals and climate change induced drought.

On behalf of Defenders of Wildlife, I thank you for the opportunity to share my perspectives on these critical issues. We look forward to working with this subcommittee and others in Congress on the policy reforms that are necessary to ensure the National Wildlife Refuge System reaches its full potential, and to invest in the Refuge System at a level commensurate with the remarkable benefits it provides to American wildlife, people and economies.

Ms. BORDALLO. Thank you very much, Mr. Matson.

Mr. Horn, welcome back to the Subcommittee. The floor is yours to testify for five minutes.

**STATEMENT OF WILLIAM P. HORN, COUNSEL,
U.S. SPORTSMEN'S ALLIANCE**

Mr. HORN. Madam Chair, thank you very much. My name is William Horn, and on behalf of the U.S. Sportsmen's Alliance, we greatly appreciate the opportunity to appear today to discuss management issues facing our incomparable Wildlife Refuge System.

Let me start by saying that we commend the Service for commissioning the independent evaluation. Few agencies demonstrate the courage to ask for such a review and then cooperate openly with the reviewers, and we think the Service deserves recognition and high marks on both of these particular counts.

I would like to briefly address three refuge management issues, including funding, that were touched on in the independent evaluation. One management issue that has been unresolved now for eight years is the lack of appropriate guidance regarding how to combine wilderness management and appropriate conservation management within units of the Wildlife Refuge System.

We believe that a recent U.S. District Court ruling involving the Kofa Refuge in Arizona should provide the impetus to resolve this now outstanding eight-year-old issue. Previously proposed Wilderness guidance failed to recognize that wilderness designations provide only supplemental management guidance. It is not contrary or superseding the primary mission of conservation of wildlife within units of the System. This supplemental nature of the Wilderness Act has been affirmed in that recent court case.

We believe that it is time now in the wake of that decision for the Service to resolve its wilderness management guidance system and clearly recognize conservation as the primary mission and Wilderness provides merely supplemental management purposes.

The second issue that was identified in the independent evaluation was the management of wildlife dependent recreation, and the express recognition of those recreation, including hunting and fishing, in the 1997 Act was one of its primary accomplishments. The Service has been very effective in implementing that aspect of the 1997 Act. Of course, that action on its part is deeply appreciated within the sporting community.

However, there is one looming problem that has budgetary consequences that it may be appropriate for Congress to address. Anti-hunting activists have filed suit pending in the U.S. District Court

in D.C. to compel the Service to prepare even more paperwork and more evaluations before hunting and fishing programs can be approved within units of the System. During a period of limited personnel and monetary resources, we believe the Service has far better things to do than prepare more reports.

Accordingly, we strongly urge Congress to take appropriate action to make it clear that the thorough evaluations that the agency conducts as part of the comprehensive conservation plan process, as well as the annual environmental impact statement analyses done associated with the migratory bird hunting programs, are more than sufficient and adequate and obviate the need for any other cumulative effects work that may need to be done. We think that that extra work just squanders these precious finite resources, and we urge you to check that issue out and see if we can resolve it.

Third and last, let me briefly talk about funding. After a period of increased operations and maintenance funding that coincided with the Refuge System's centennial, clearly funding has begun to slide. Clearly one option is for Congress to simply appropriate additional funds.

However, our concern is that as the System grows and uses expand the need for funding will likely outstrip Congress' ability to simply provide additional monies. This problem is not unique to Fish and Wildlife. Similar problems afflict the Forest Service and the BLM.

We are persuaded that it is time for a new paradigm for funding our Federal public land management systems rather than just 101 percent reliance on appropriated funds. We strongly recommend that Congress, the Service and the conservation community come together to pursue development of new funding methods and options.

One hundred years ago the sporting community, in cooperation with Teddy Roosevelt's Administration, developed what has become the North American model for wildlife conservation funding that has worked extraordinarily well for nearly a century. We believe a similar effort today is needed not only for our Refuge System, but for other public lands, so that we don't continue to have these types of hearings describing the continued funding problems that we face.

We think that taking action along those lines would be an appropriate step. It was 100 years ago, as I said, that the Roosevelt Administration kicked off what has become the North American model. It is probably time for a new model that would help us put these funding issues to bed in some more comprehensive fashion.

Thank you very much.

[The prepared statement of Mr. Horn follows:]

**Statement of William P. Horn, on Behalf of the
United States Sportsmen's Alliance**

Madame Chair: My name is William P. Horn appearing on behalf of the U.S. Sportsmen's Alliance (USSA). We appreciate the opportunity to appear before the Subcommittee to discuss issues facing the National Wildlife Refuge. USSA is a national association of hunters, anglers, and trappers, and sporting organizations representing over a million members and affiliates committed to protecting and advancing America's heritage of hunting, fishing and trapping. USSA has long been committed to ensuring a vital well managed Refuge System that conserves our in-

comparable wildlife resources while providing important opportunities to hunt, fish, and trap.

My testimony also reflects perspectives gained during my prior service as Assistant Secretary of the Interior for Fish, Wildlife and Parks under President Reagan and the privilege of serving as Chairman of the National Wildlife Refuge Centennial Commission in 2002-2003.

We commend the Fish and Wildlife Service for commissioning the Independent Evaluation of the effectiveness of the Refuge System. Few agencies demonstrate the courage to ask for such review and then cooperate openly with the reviewers. The Service deserves high marks on both counts. Review of the evaluation indicates that the Service is doing an outstanding job with limited resources and we were pleased that the agency's performance for nine of the twelve Strategic Outcome Goals (SOGs) was considered effective and in only two cases was performance considered "ineffective." USSA wishes that other federal land management entities, with budgets dwarfing the Service, performed so well.

Following our review of the Independent Evaluation, five areas presented issues we wish to address: SOG 3—Wilderness; SOG 5—Wildlife Dependent Recreation; SOG 7—Law Enforcement; SOG 8—Infrastructure and Funding; and SOG 10—Growing the System.

SOG 3 - Wilderness—The Service is in desperate need of new guidance regarding Wilderness management issues and a recent U.S. District Court ruling involving the Kofa Refuge in Arizona should provide the impetus to finally resolve this issue. Proposed Wilderness guidance issued eight years ago failed to recognize that Wilderness designations of Refuge lands are designed to provide "supplemental" management purposes and guidance. Indeed, the "supplemental" reference is an express term of the 1964 Wilderness Act. Despite this statutory clarity, previously proposed guidance improperly elevated Wilderness purposes contrary to the more fundamental wildlife conservation objective of the Refuge System as clearly articulated in the 1997 Refuge Improvement Act.

This hierarchy has been affirmed in a recent lawsuit in Arizona. There the Service, Arizona Game and Fish, and local conservationists like the Arizona Desert Big-horn Sheep Society and the Yuma Valley Rod and Gun Club (USSA affiliates) developed water catchments to enhance desert sheep populations. An interest group named Wilderness Watch objected and argued that the Wilderness Act barred such water catchments within the Refuge even though they would help wildlife populations. The District Court rejected this nonsense and affirmed that the primary purpose of Refuges is wildlife conservation. The Service should promptly complete new Wilderness guidance that reflects this approach.

SOG 5 - Wildlife Dependent Recreation—The express recognition of Wildlife Dependent Recreation, including hunting and fishing, in the 1997 Refuge Act was one of its primary accomplishments. The Service's effective implementation of this statutory policy is widely recognized and deeply appreciated within the sporting community. However, there are some looming problems that Congress ought to promptly redress.

First, animal rights radicals and anti-hunting activists have filed suit in U.S. District Court to compel the Service to prepare more paperwork and more evaluations before hunting and fishing programs can be approved. Although contrary to the intent of the 1997 Act, over the last two years the Service has had to expend substantial time, effort and resources to prepare this extra and superfluous documentation. During a period of limited personnel and monetary resources, the Service has better things to do with those resources. Accordingly, we strongly urge Congress to take action to make it clear that the evaluations conducted as part of the Comprehensive Conservation Plan process and the annual analyses associated with migratory bird hunting regulations are sufficient and that additional "cumulative effects" work is unnecessary to authorize hunting programs. This would save substantial money and free up limited personnel resources for more important conservation and refuge management work.

Second, USSA is extremely apprehensive about language in the Independent Evaluation referring to "prioritizing" allocation of limited resources "among the various recreational activities." The last time we saw similar language was in 1995 when the Clinton Administration attempted to curtail hunting and fishing opportunities on Refuges in the name of budget shortfalls. That effort to put hunting and fishing programs on the chopping block was a primary impetus for enactment of the 1997 Improvement Act and its recognition of hunting and fishing as priority public uses of the Refuge System. Hunting and fishing activities generate more revenues for the Service, and their partners in the state fish and wildlife agencies, than do the other priority public use activities. If budget shortfalls absolutely mandate use restrictions, hunting and fishing programs must be the last to be impacted.

Third, we have concerns regarding any efforts to define “quality” hunting. This is a highly subjective standard and we have witnessed efforts by some Refuges to restrict traditional hunting activity on the grounds that it doesn’t provide sufficient “quality.” USSA supports quality experiences but wants to ensure that any proposed restrictions advanced in the name of “quality” must be very carefully vetted with local hunters and the appropriate state fish and wildlife agency.

SOG 7 - Law Enforcement—USSA sympathizes with the need for enhanced law enforcement on refuges. We are concerned though that simply increasing funding and personnel for the Law Enforcement (LE) division without clear management objectives in place will not produce the anticipated benefits. From our perspective, the LE division continues to wrestle with its priorities and old fashioned on-the-ground enforcement within the Refuge System appears to be at the bottom of the priority list. Rather the focus is on import/export matters including CITES, migratory bird enforcement aimed at incidental takes, and homeland security related measures. If additional funding is provided to LE, it must be clearly designated for improved on-the-ground activities within Refuges. Without that limitation, we fear that enforcement within Refuges will remain at the bottom of LE’s priorities.

SOG 8 - Infrastructure and Funding—After a period of increased operations and maintenance funding that coincided with the Refuge System Centennial, funding has begun to slide. One option is for Congress to simply appropriate additional funds. However, it is evident that as the System grows and wildlife dependent recreation uses expand, the need for funding will outstrip Congresses ability to simply provide additional monies. Similar problems afflict the Forest Service and the Bureau of Land Management.

USSA is persuaded that we need a new paradigm for funding public land management systems. The hunting and fishing community has been at the funding forefront for a century by providing hundreds of millions annually via licenses, fees, stamps, and excise taxes for wildlife conservation. Many of these dollars are for the benefit of the Refuge System. There is no doubt the sporting is prepared to do more but it lacks the resources to bear the burden of funding the system—a burden that would inequitable as well. Today we are in no position to present that new paradigm. Rather we strongly suggest that Congress, the Service, and the conservation community come together to pursue development of new funding methods and options. One hundred years ago the sporting community, in cooperation with the Teddy Roosevelt Administration, developed what has become the North American Model for wildlife conservation funding. A similar effort is needed today for our Refuge system.

In the near term, however, we strongly endorse recommendations to tailor administrative requirements for smaller refuge units. “One size fits all” rules do not work and it is clear that there is significant waste associated with making small units comply with same bureaucratic procedures as large units. Streamlining these procedures for small units will enable the Service to stretch its available dollars.

SOG 10 - Growing the System—This was one of two goals where Service management was rated as ineffective. My experience indicates, however, that this “ineffectiveness” is a result of outside forces beyond the Service’s control. The report noted that land purchases for Refuges often do not match the priorities identified by the Land Acquisition Priority System (LAPS). This particular problem has existed for over 25 years and can be readily fixed by the Congress. I directed establishment of LAPS in 1985 because Congressional appropriators were ordering land acquisitions inconsistent with the System’s bona fide needs. LAPS was designed to enable the Service to identify those lands that ought to be acquired to advance Refuge System goals. Unfortunately, Congress frequently disregards these priorities. A bit of self discipline in the Congressional agency funding process (i.e., follow the resource priorities set by the professionals in the Service) would correct this problem.

Another problem created outside the Service is the Interior Department’s land appraisal procedures. Created as an overreaction to criticism from the Inspector General, the new system is time consuming, complex, costly, and simply doesn’t get the job done. The system is more focused on nit-picking appraisals than efficient acquisition of environmentally valuable lands. We strongly concur with the recommendation of the Independent Evaluation that the appraisal function be returned to the Service.

Thank you again for the opportunity to appear today. The Service continues to do an excellent job of managing the Refuge System with limited resources. We need to assist the Service in making the most efficient use of these resources while working to develop a new funding model to assure that sufficient funds are available to ensure sound conservation, management, and use of our incomparable Wildlife Refuges.

Ms. BORDALLO. Thank you very much, Mr. Horn.

I will now recognize Members for any questions they may wish. Normally we ask the witnesses and we alternate between the Majority and the Minority Members of the committee, allowing five minutes for each Member.

However, since I am the sole Member here today I will begin with the questioning, and we will await the return of Mr. Kind and our Ranking Member. There is a strong possibility he may be back also.

I will begin with Mr. Kurth. I am very disappointed by the Administration's testimony. I will begin with that. I would like to ask you some questions to determine why the Administration is unable to provide any comments regarding the GAO's report.

It is my understanding that the GAO forwarded to the U.S. Fish and Wildlife Service a copy of its draft report on August 19, 2008. Is that correct?

Mr. KURTH. I don't recall the exact date, but, yes, we have seen a draft of the report.

Ms. BORDALLO. And quite some time ago?

Mr. KURTH. Yes.

Ms. BORDALLO. It is my further understanding that according to a September 16, 2008, letter from Assistant Secretary Lyle Laverty to Ms. Nazzaro that is included as Appendix 6 in the GAO report, the U.S. Fish and Wildlife Service provided to the GAO technical comments on the draft report. Is that correct?

Mr. KURTH. Yes.

Ms. BORDALLO. Ms. Nazzaro, a review and comparison of the draft report and the final report by committee staff indicates that these reports are substantially almost identical. Is that correct?

Ms. NAZZARO. In this case, yes. It wouldn't always have to be. It really depends on the nature of the comments. If an agency substantively disagrees with us we will consider those comments, and we could make changes to the report. In this case the agency provided us technical comments, which we did address as appropriate. I believe there were about a half a dozen comments, and we addressed them all.

The most substantial one had to do with the fact that we used a statistical model to develop some of our information, and they wanted to know what kind of a review process we went through so we described not only our use of an economist to develop the model, but the use of a statistician to review our methodology, so that was added, but substantively they did not change in this case.

Ms. BORDALLO. Yes. OK. So they were almost identical. The answer is yes. All right.

Let me then return to you, Mr. Kurth. It would appear from the previous responses that the U.S. Fish and Wildlife Service had ample opportunity to review the GAO report and in fact did provide comments. It is also clear that there is materially very little different from the GAO's draft report and the final product.

In light of the fact that the Administration has had the draft report for over a month and already provided comments to the GAO, why is it incapable of providing comments on the record today?

Mr. KURTH. The Fish and Wildlife Service appreciates the close relationship we had with GAO working on this and we did provide

those comments on the draft, but it is the Administration's policy to only formally comment on finalized GAO reports.

Ms. BORDALLO. What aspects in the final report are so different from the draft findings that the Administration is unable to provide comments to the committee?

Mr. KURTH. I believe the fact that the draft is just being released this morning didn't allow the officials who were involved in the—

Ms. BORDALLO. It was 6:00 last evening, right, to our committee?

Mr. KURTH. I think the people who reviewed the formal statement today felt like because they did not have a final report that they couldn't offer the formal testimony.

Ms. BORDALLO. So because the word final wasn't there, and even though they were very similar, you—

Mr. KURTH. That is correct.

Ms. BORDALLO.—could not make any comments? All right.

One of the goals of the 1997 Refuge Improvement Act was to establish for the first time uniform policies to ensure consistent management across the Refuge System, yet the thrust of the GAO and the MSI reports seems to be to the contrary.

Insufficient resources to hire and retain full-time staff and conduct management activities and visitor services has forced the Fish and Wildlife Service to scale back core operations that has greatly increased program variability and equality from refuge to refuge.

This question I guess I would ask to Mr. Kurth and Mr. Matson. Do you agree that the Refuge System is failing to meet this fundamental goal of the Refuge Improvement Act? Mr. Kurth first.

Mr. KURTH. I think that the Fish and Wildlife Service is successful in accomplishing the Refuge System's mission. I do, though, agree with your observation that at some stations we are not delivering it as effectively as others.

I mean, we don't like to do triage in wildlife conservation, but when there aren't enough resources to do everything we feel we have done a good job of saying where our priorities are and putting our resources in the areas of highest priority.

Those are the difficult choices that we have made, and that is the direction that Director Hall has given us is to do the most important things with the resources you have, and I think we have done a good job being clear with our priorities.

Ms. BORDALLO. Mr. Matson?

Mr. MATSON. Yes. I think the Fish and Wildlife Service faces a huge challenge. What do you do when you don't have enough money?

You know, they decided in their judgment to instead of cuts across the board to try to be a little more strategic with those cuts. Are there refuges that are higher priority than the others? Are there refuges that have more abundant wildlife that might need more attention or more visitors that need more attention? And so I think the fundamental premise of how they have done that is sound.

However, I think to the point of consistency across the board, the Refuge System is managed under essentially eight regimes. There are eight regions of Fish and Wildlife Service, and the line authority for the Refuge System does not come from Washington. It comes from each regional director. I think that leads to a lot of incon-

sistent management for everything from planning to how competitive these rates are done to how land acquisition is done. I think that is a big problem.

Ms. BORDALLO. Again, Mr. Kurth, I guess I will ask you to answer this. What are the consequences to the Refuge System as a whole?

Mr. KURTH. The consequences of not having the resources to do everything we want?

Ms. BORDALLO. Yes.

Mr. KURTH. You know, these reports both point out that we have not the type of inventory and monitoring programs that we would like to have. We don't offer all of the environmental education and interpretive programs that we could.

There are a number of things that don't get done, but our job is to determine what are the essential things. You know, where do we have to have law enforcement officers to assure public safety and to protect the wildlife resources? Where do we have the greatest opportunities to provide environmental education? Where do we have the most significant needs to fight invasive species?

I believe that we have been effective in identifying those priorities. It is clear from both reports there are other opportunities for us to enhance our conservation and visitor services, but I think we are being effective in sorting out priorities.

Ms. BORDALLO. With what you have. Mr. Matson?

Mr. MATSON. Can you repeat the question?

Ms. BORDALLO. What are the consequences to the Refuge System as a whole?

Mr. MATSON. As a whole? Yes. First of all, I think people have said already that the Refuge System—you can look at these reports as the Refuge System is half full or half empty. I think the half empty part is places like Supawna Meadows, Crystal River, a bunch of other refuges that are really being neglected. If you have no staff managing a refuge, it is just going to be overcome with vandalism, invasive species and the like.

At the same time, given all of the financial problems facing the Refuge System, the half full view is that the Refuge System is doing a pretty darned good job with what they have, and I think they have been really effective at trying to do more with less.

Unfortunately, I think we are finally coming to—they have been able to do that for a handful of years, but we are finally reaching the crisis point where they can no longer do that. You have staff out there. Every time they lose staff they pick up the work, and there are so many hours in the day. They can't keep picking up the work. You have overworked staff. It is just not sustainable.

And so while I think they have been pretty effective at doing what they have so far, I think over the next few years we are really going to see a dramatic slide.

Ms. BORDALLO. All right. One more question to the two of you.

How many refuges have been completely closed because of this financial situation? I know some of them have been closed for in the case of endangered species, protecting the habitat, but how many have been closed?

Mr. KURTH. There is a difference between closing an office and the staffing and closing the refuge to the public visitation.

I know of no refuges where we were previously open for the public to use the refuge where we have told them they can't come in, but clearly in places where we have lost staffing the——

Ms. BORDALLO. The office has been closed.

Mr. KURTH. There has been offices closed. A small number. I can get you the exact number, Madam Chair. I don't have that.

Ms. BORDALLO. I would like that number.

Mr. KURTH. But it is a small number. Again, because we were successful in having additional funds appropriated in Fiscal Year 2008, some of those trends have begun to reverse, but there is no doubt that we have reduced staffing. That doesn't, though, equate to necessarily closing the refuge to the public.

Ms. BORDALLO. I understand. I understand. So you will give me the number of the closed offices?

Mr. KURTH. Yes, ma'am.

Ms. BORDALLO. And you are stating emphatically that there are no refuges that have been closed in any of the states across the Nation or the territories?

Mr. KURTH. There have been no National Wildlife Refuges where the public has been not allowed to enter the refuge because of funding crises. Yes.

Ms. BORDALLO. All right. And I have one other question. Then I am going to turn to Mr. Kind.

Ms. Nazzaro and Mr. Callihan—I will ask you, Ms. Nazzaro, first. If refuge lands in Alaska are removed, how would that change the findings in your respective reports?

Ms. NAZZARO. We would probably have to recalculate some of our responses. I don't have a breakout of which of those responses came from the refuges in Alaska.

Certainly they do account for a large amount of land, but as far as the number of refuge managers I don't think there is a real disproportionate number so I wouldn't think that there would be a significant shift in the responses, but we would have to recalculate that.

Ms. BORDALLO. Mr. Callihan?

Mr. CALLIHAN. Yes. I don't believe it would change any of our overall ratings or conclusions.

However, one of the recommendations we did make is that as the refuge moves forward with using its annual reporting system, the RAPP system, Refuge Annual Performance Plan reporting, that as that system becomes used more as a result of base management systems to make decisions that the analysis of that data be disaggregated between Alaska and the rest of the System because I think the Alaska data can give a skewed picture of the performance of the Refuge System.

I think it is what, 85 percent of the refuge lands are in Alaska, and I think 95 percent of those lands are wilderness areas. I might be a little bit off on that. So if you take those out of the overall aggregated data for performance then you see it becomes much more obvious that there is a much more greater percentage of land in the rest of the system that requires active habitat management and improvement, and there you can really see where some of the funding deficiencies are really playing out, I think.

Ms. BORDALLO. Thank you. I have one final question. I was just given a number here.

Mr. Kurth, would you agree with that? One hundred and eighty-eight unstaffed refuges?

Mr. KURTH. Yes. I mean, it could be one or two off, but that is the ballpark of refuges that don't have on-site staff.

Ms. BORDALLO. And that is offices closed?

Mr. KURTH. Correct. Often times we will have refuges that are in close proximity to one another where we can have staff that can manage from a central location some of these areas in close proximity.

Additionally, there are a number of remote islands that we wouldn't staff even if we had adequate staffing.

Ms. BORDALLO. Is Guam one of those remote islands?

Mr. KURTH. No, ma'am. No. Largely small bird nesting colonies, not wonderful, beautiful places like the island of Guam.

Ms. BORDALLO. Thank you. You have put me on good stead now.

But the 188. That is quite a significant number, Mr. Kurth. I am rather surprised. It is about one-third. Is that correct?

Mr. KURTH. That is correct. Again, there certainly are refuges that if we had unlimited resources we would put staff at. There are refuges on that list, though, that we would not.

There is a refuge called Huron Island, which is a granite rock in Lake Superior that has some bird nesting colonies, and it is adequately managed from Seney Refuge in the Upper Peninsula in Michigan by periodic patrols and survey work. It is uninhabited and out in the middle of Lake Superior where not very many people go.

We have other colonies, bird nesting islands, where people visit periodically and seasonally when the resources are there, and that is an adequate stewardship approach for some of those places, but clearly we don't have all the people to put in all the places that—

Ms. BORDALLO. Well, it certainly is another reason why we should provide adequate funding for this program.

I will turn over the questions now to the gentleman from Wisconsin, Mr. Kind.

Mr. KIND. Thank you. Thank you, Madam Chair. Again, I apologize for having to run in and out.

I was just wondering if the Chair's previous question pertaining to Alaska was anticipating the eventual succession of Alaska from the union and that is why we have to revamp the numbers. I hope that doesn't occur. It is a beautiful state, and we are very proud to have it in the union.

Mr. Kurth, let me just stay with that line of questioning first as far as the 188 field offices that have been closed. What was the criteria, the determination, that was used to make that decision?

Mr. KURTH. Well, of the 188 or so refuges that don't have staff, most of those never have. There have been a number where we destaffed them because of our workforce planning efforts simply because we identified them as the lower priorities amongst the work that we have to do.

Nobody likes to make those decisions, but we feel it is extremely important that we put our resources where the payoff is greatest

and so if that requires us to temporarily take staff from one place and put them at another then we are willing to do that.

Mr. KIND. Now, obviously with the cooperation of Chairman Dicks and the Appropriations Committee we were able to achieve a nice plus up as far as the refuge budget in the latest fiscal year, but given the \$3.5 billion maintenance and operation backlog and all the other challenges that you are facing, you had mentioned—I think I heard your testimony—that you were using some of that to restore some of the staff positions that were recently downsized. Is that correct?

Mr. KURTH. We have been able to add 20 law enforcement officers with that funding and a very small number of other positions.

What we have tried to do is put an emphasis on making sure that refuges have the dollars they need to pay their bills, to do their work projects and to not get too much of the refuge funding tied up in staff.

We can use seasonal workers. We can contract for work. What we found in the past is that we had such a high percentage of our dollars tied up in salary that when budgetary situations became tight we didn't have enough money to do our work and so we have as a top priority protecting that management capability as a component of refuge funding.

So in the future funding gets tight then what we will do is reduce positions in order to protect our ability to manage the places where we have staff.

Mr. KIND. Mr. Kurth, I was remiss in neglecting to thank you as well when Director Haskett came up on the Hill to brief many of us on your self-evaluation. That was very helpful and a very generous use of your time to do that.

I know in visiting so many of the refuges throughout the country we are blessed to have the dedicated staff and personnel that are charged with making it all come together and work, but we are also very fortunate, given the strong care coalition that has formed about refuge and funding issues and the friends of the Refuge System that is indispensable as far as getting a lot of the necessary work done.

But even with the enthusiasm and passion that our friends of refuge display, they still need guidance, which means they still need professional technical assistance and things of that nature, so when we are talking about staff reductions and offices closing this does have a ripple effect throughout the entire System.

But let us get to the real crux of the challenge that we are facing, and that is the funding issue. Mr. Horn, let me direct this toward you because I read your testimony, and you did cite in your testimony the North American model for wildlife conservation funding and kind of the process that we need to put in place to think through a new paradigm of funding with our Refuge System.

In your testimony you also mentioned that you are not prepared or the Sportsmen Alliance isn't prepared to offer that new paradigm yet, but I would hope that there is some thinking about how we get from A to Z with this. As a sportsman myself, some of the greatest conservationists I know are those who like to go out in the refuge and hunt and fish and enjoy the outdoors.

But we also have to recognize that there is about a 10 to one ratio between birders, birdwatching, going into the refuge and sportsmen going into the refuge, so how do we expand the universe and how do we come up with a new funding paradigm and what kind of process are you envisioning here as we move forward?

Mr. HORN. Well, I think the process is essentially a political process in terms of developing appropriate public policy.

On behalf of the Alliance, we have begun internal thinking about can we find dedicated sources of funding so that we are not reliant 100 percent on appropriated dollars? What opportunities exist for additional entrance and user fees? We know that the sporting community through duck stamps and license fees has been the backbone of the North American model. What else might the sporting community be able to contribute to the mix?

As you indicate, there is an awful lot of other elements in the user community in wildlife-dependent recreation who are not anglers and hunters. What kind of contributions can they make, and out of that can we come up with something that provides a more sustained level of funding over time without this complete reliance?

I remember when we had the comparable hearing two years ago and former Secretary Babbitt, and Bruce and I ended up going to lunch about a month later and having this very same conversation about there has got to be some way to get at this because, I think as many of you all know, this problem is not unique to the Fish and Wildlife Service. The Forest Service probably faces this to an even greater degree, and BLM wrestles with it.

There are efforts of course on the Park Service side to come up with that form of dedicated funding in the centennial initiative that has been kicking around. We believe that we have to sit down and get very creative about how to come up with something for this System and others.

I don't have anything that we can offer, but we would appreciate the opportunity to begin working with other elements of the community, the Administration and Congress to say how do we craft something that gets at this? What is the best model?

We have been able to do this before. We ought to be able to do this again.

Mr. KIND. I couldn't agree with you more, and I think maybe with the centennial of the Park System coming up it might provide a nice vehicle or model of how we can move forward on all these different levels that you just described because it is only backing up and getting worse by the year, and time I feel is of the essence.

Mr. Kurth, let me also ask you, because Mr. Matson talked about the three refuges that were wiped out down in Texas, but have there been any preliminary cost estimates and what type of work needs to be done as far as restoration of those refuges?

Mr. KURTH. We have preliminary cost estimates that we haven't formally transmitted through OMB, but we know from Hurricane Ike alone our damages are probably close to \$250 million and from other storm-related damages this year, including some flooding in the Midwest, probably as high as \$300 million.

Mr. KIND. And in those three refuges we are talking about buildings being waylaid too, aren't we? It is not just debris and a lot of—

Mr. KURTH. At those Texas refuges we lost our facilities in total. All of our buildings, all of our equipment, all of the residences on those refuges were completely destroyed.

Mr. KIND. And the \$250 million figure you are citing is all the disasters that occurred throughout the country? Is that right?

Mr. KURTH. \$250 million was our estimate of Hurricane Ike.

Mr. KIND. Just Hurricane Ike.

Mr. KURTH. Right.

Mr. KIND. OK.

Mr. KURTH. For example, at Anahuac Refuge alone we lost \$85 million worth of real property.

Mr. KIND. All right. Because we are asking the field offices now, given the incredible flooding that we experienced in the upper Midwest, in some areas twice in 10 months now, what they are looking at as far as repair and maintenance of the damage that was done there. These disasters keep piling up on us as well.

Mr. KURTH. Right. Let me emphasize they are preliminary figures. You know, we will transmit the formal figures through the formal channels.

Mr. KIND. Finally let me ask you, because it sounds as if the GAO report that we have here today, that the CCP process is pretty well on track as far as the goals.

From my personal experience, living on one of the largest wildlife refuges, the Upper Miss, but given the multiple uses of it, there were some inherent conflicting situations that arose and it became a very difficult process unfortunately up there to get a CCP plan moving forward.

Is there a plan with the Service to go back and do a review of what worked well and what problems were encountered in the CCP process so it could be a teachable moment as well?

Mr. KURTH. Yes. We are planning actually to convene a meeting of our planning staff early next year to come together and do some lessons learned.

We did develop a plan that Director Hall implemented to assure we get all these CCPs done by the year 2012, the statutory deadline. We believe we are on track to do that. I am a little concerned that some of the preliminary numbers for this year aren't going to be as good as what we thought.

We think it is important, though, to take the time necessary to work with communities to get plans that can be implemented, and we will certainly do everything we can to stay on track. Our planning budget was reduced by \$2 million last year, though, and we haven't assessed whether or not that is going to change the calculus out to 2012.

Mr. KIND. Let me also take this opportunity to thank the Service for the flexibility that they demonstrated, and obviously we are talking field staff, in working with the local people and making sure that private/public partnership and coalition that forms around the management of the refuges remain intact.

Not that the Upper Miss CCP is completely controversy free at this point, but I think there were some decisions later on, especially involving some prime duck hunting areas, that was taken into account. Don Hultman, the manager of the Upper Miss Wild-

life Refuge, changed his approach on a couple of matters, which went a long ways I think with community support.

Because ultimately when you talk about the problem you are facing with law enforcement, most of the rules and regs that exist in the refuge is self-compliance. I mean, it is self-enforcement. We can't afford to hire an army of law enforcement officers to go out there and enforce every little bit of rule. It has to be community buy in. Otherwise it is just not going to work.

That ultimately needed to be the goal of the CCP process, and I think Mr. Hultman demonstrated some good flexibility on that front.

Mr. KURTH. We think that the involvement of communities and our state partners is essential in the CCP process.

People who helped craft that law, including my friend Mr. Horn here, made sure that a central tenet of that law was community involvement in our decision making, and it has proven to help us implement those plans when the communities are actively engaged in shaping the future direction.

Mr. KIND. All right. Thank you. Thank you, Madam Chair.

Ms. BORDALLO. I thank the gentleman from Wisconsin. We have another round of questions if you have any further questions.

I would like to focus on law enforcement. Both the GAO and the MSI reports are highly critical of the insufficient level of law enforcement within the Refuge System. In fact, the GAO report concludes that the Fish and Wildlife Service needs to hire about 200 additional officers in order to meet just the minimum—just the minimum—number needed to provide adequate protection to refuge resources and the visiting public.

Ms. Nazzaro and Mr. Callihan, did any of your analysts—I will ask you, Ms. Nazzaro, first. Did any of your analysts develop a projection for how long it would take the Fish and Wildlife Service to hire and train an additional 200 law enforcement officers based on the existing trend in funding for the refuge system?

Ms. NAZZARO. The short answer is no, we did not, but I would also like to make a correction that that was not our assessment that they needed 200 more. That came from the Fish and Wildlife Service as far as what their plan is to add.

Ms. BORDALLO. What is your assessment?

Ms. NAZZARO. We did not look at law enforcement. That is one area where our study and MSI differ in that we did not look specifically at law enforcement.

We asked what kind of initiatives the agency has undertaken, what would impact habitat management and visitor services, and certainly this shift in resources that the agency made to ramp up law enforcement did impact other activities at the refuges, but we did not look at it specifically.

Actually Chairman Rahall has a request that he has sent to GAO to look at law enforcement across the Federal land management agencies, and we will be undertaking that study shortly.

Ms. BORDALLO. Thank you. I got the 200 number from Fish and Wildlife Service. This is their suggested estimate.

Ms. NAZZARO. Correct.

Ms. BORDALLO. Mr. Callihan, what do you have to say on that?

Mr. CALLIHAN. Madam Chairwoman, if I may, I want to refer this question to my colleague, Keith Brown, as he headed up that portion of the analysis for our study. He is right here.

Ms. BORDALLO. All right.

Mr. BROWN. Can I just speak loudly?

Ms. BORDALLO. No. Please step up to the—

Mr. BROWN. OK.

Ms. BORDALLO. Be seated. Could you identify yourself for the record?

Mr. BROWN. Yes. My name is Keith Brown. I am Senior Vice President with Management Systems International, one of the senior evaluators for the MSI evaluation of the Refuge System.

I took a look at the law enforcement issue, the law enforcement strategic outcome goal, as part of the evaluation. We did not do any analysis in how long it would take to fill the shortfall or our projected shortfall or actually the shortfall between the current level, the current number of full-time officers, and what we in fact heard from the refuge managers and also from other sources, a 200 to 300 shortfall in the full-time officers.

We did not do an analysis of that, of how long it would take to fill that shortfall, because it is a very complicated question that has to do with how to distribute additional resources should they be forthcoming to a range of difficult and complicated issues.

I will say, though, that it is about a six-month training process to fully train an officer for deployment. We found that training process to be a very rigorous and substantial and useful training program, but we did not do any analysis beyond that.

Ms. BORDALLO. Thank you very much for clarifying that.

Mr. Kurth, your report did suggest 200. Is that correct? Does it still remain the same?

Mr. KURTH. For a little background, a number of years ago we contracted with the International Association of Chiefs of Police, the preeminent professional law enforcement organization, and asked them to develop a staffing model for us for what they would see based on data—visitation, crime statistics, things such as that—we would need for refuge law enforcement officers. Their report recommended 845 officers. Now, their report also assumed correctly that we could get some of that support from state and local authorities.

What we have done internally is try to think about our staffing in a way that gets at what is critical. The reports that say we are ineffective beg us to do that, so as professionals, as a former officer with our law enforcement staff, we have talked about those things, but the number of officers we need ends up being officially that which the President asks for in his budget request.

Certainly the number 200 is a number that our refuge law enforcement professionals and myself use in our internal deliberations, but when it comes to me telling you what we need, the President asks for the law enforcement budget that we need.

Ms. BORDALLO. What did the President ask for?

Mr. KURTH. Well, I mean, his law enforcement budget is not increasing at a rate that is going to get us to 200 officers.

Ms. BORDALLO. Did he put a number to this?

Mr. KURTH. Yes, but I would have to look up the exact number of our refuge law——

Ms. BORDALLO. You can't remember that?

Mr. KURTH. It is about \$36 million, but I would like to be accurate and precise when I give the committee the figures.

Ms. BORDALLO. All right. Thank you.

Now we will go back to Ms. Nazzaro and Mr. Callihan. Is it reasonable to conclude that under existing budget trends the Service will not be able to address this particular threat without having to cut funding for other program activities, including resource management and visitor services?

Ms. NAZZARO. I don't know that without looking at it we could say it is reasonable.

Any time you make a change, whether it is to shift resources or to reduce resources and put it into operational funds, it is going to have an impact. What that impact would be I wouldn't want to guess at it.

Like I say, I mean, we will be looking at the whole law enforcement issue——

Ms. BORDALLO. Right.

Ms. NAZZARO.—and we could certainly add that.

Ms. BORDALLO. I think the question is if we were to bring law enforcement up to par what else would suffer?

Ms. NAZZARO. I am saying I don't know what directly would suffer.

Ms. BORDALLO. You don't know.

Ms. NAZZARO. It depends on what tradeoffs because the agency certainly has a number of options, whether it would reduce other staff positions or whether they would reduce other operational aspects. You know, there certainly are options.

To say what the direct impact would be, I couldn't estimate what it would be. It would depend on the tradeoffs that the agency would decide to make.

Ms. BORDALLO. All right. Mr. Brown, are you still sitting in for Mr. Callihan?

Mr. BROWN. Yes, I am.

Mr. CALLIHAN. Yes.

Ms. BORDALLO. Do you have the answer to that question?

Mr. BROWN. Well, I am going to go back to what I heard as the first part of the question, which was would we conclude that under current funding levels that the Fish and Wildlife Service would not be able to meet its what we consider adequate law enforcement requirements.

Our report only tracked the budget through 2007 prior to the sort of bump in appropriations, but at that point in time our conclusion was fairly unequivocal. Without changes in the funding stream the law enforcement issue would continue to be a substantial and serious problem for the Refuge System.

Ms. BORDALLO. OK. And finally now Mr. Kurth. After hearing all of this, what types of impacts is the Refuge System experiencing with, as these two reports outline, the grossly inadequate levels of law enforcement officers? Can you provide some examples of how we are suffering on this because of the lack of law enforcement?

Mr. KURTH. It is always difficult when you don't have an officer on site to say what crime is being committed.

One of the things we find—it is a paradox in law enforcement—is when we add officers crime goes up. Well, it doesn't go up. We just detect it and slowly deal with it.

Ms. BORDALLO. But certainly you must have some examples of the Refuge System or the refuges where you have found things that you say if only we had had law enforcement on board.

Mr. KURTH. You know, we see increases in all sorts of criminal behavior.

Ms. BORDALLO. Theft?

Mr. KURTH. Theft. You know, we have had gang related activity here in Fairfax County at Mason Neck Wildlife Refuge. There are a wide range of crimes that affect our visitors and that affect the national resources we protect.

I want to emphasize, however, our utmost priority is protecting our officers. We were very much grieved this week to learn that one of our colleagues, Forest Service Officer Chris Fairbanks, was killed in the line of duty last week. These are people we train with and work with.

This is dangerous work, and we feel like the way we deploy our officers first and foremost has to assure that when they are in the field we deploy them in a manner where they have safe working conditions. We feel that is the case, but certainly there are every indications that our law enforcement program is challenged.

I think we have to recognize too, you know, in the events following September 11 our mission also changed. We have been called on to work national security events at icon parks, the Salt Lake Olympic Games. I mean, it is a new world requiring a different approach to law enforcement. That is why we have been challenged.

We used to use what we call dual function officers—refuge managers, wildlife biologists—with these as part-time responsibilities. In today's world with the 30-week training requirement and the dangers in law enforcement, we are trying to transition to a law enforcement workforce of full-time officers, and that has just simply been an exacerbating impact of the difficulty in making sure we are adequately covered.

Ms. BORDALLO. Mr. Matson, could you give me your ideas on this?

Mr. MATSON. Absolutely. In the words of the Refuge System's chief officer, every crime that happens in America occurs in a National Wildlife Refuge. There are meth labs. There is graffiti. There is gang activity. Every single crime that happens in America happens in a National Wildlife Refuge, and it is a problem.

As I relayed in my oral testimony, the example of harassment of endangered species, of manatees down in Crystal River, because there is no law enforcement presence. There are a million examples out there of the problem.

Another issue which isn't explored in these reports is that it is a significant investment in training. I think it is \$50,000 to \$100,000 to train an officer. It is over a six month period, as was mentioned. Because of the budget issues at Fish and Wildlife Service and the structure of their officers, a lot of those officers, that

is Federal law enforcement training. They can then go to the Fish and Wildlife Service or BLM and get paid more.

There is a number of instances where Fish and Wildlife Service is paying the bill and not getting the officers, and so that is a structural change that needs to happen.

Ms. BORDALLO. Thank you. That was a very good point that you brought out.

I would like to recognize the gentleman from Virginia, Mr. Wittman, a Member of this Subcommittee.

Mr. WITTMAN. Thank you, Madam Chairwoman. To begin with, I would like to ask unanimous consent that the statement by Ranking Member Brown be entered into the record.

Ms. BORDALLO. Without objection.

Mr. WITTMAN. Thank you.

[The prepared statement of Mr. Brown follows:]

**Statement of The Honorable Henry E. Brown, Jr., Ranking Republican
Member, Subcommittee on Fisheries, Wildlife and Oceans**

Madam Chairwoman, as the 110th Congress draws to a close, it is appropriate that this Subcommittee conduct an oversight hearing on the management of the National Wildlife Refuge System.

This unique system of federal lands provides essential habitat to hundreds of wildlife species and wildlife-dependent recreational opportunities to nearly 40 million Americans who visit at least one refuge every year.

In my own Congressional District, the Cape Romain, Ernest F. Hollings ACE Basin and Waccamaw National Wildlife Refuges provide 87,500 acres of vital habitat for a number of listed species including bald eagles, brown pelicans, loggerhead sea turtles and wood storks. They also allow nearly 200,000 people to enjoy hunting, fishing, environmental education, photography and wildlife observation.

Together, these three refuges are a key component in what the Fish and Wildlife Service has described as the economic benefits to local communities from refuge visitation. According to their latest "Banking on Nature" Report, refuges generate \$1.7 billion in annual sales to regional economies, they create nearly 27,000 jobs and provide \$185 million in tax revenues.

Today, we will hear testimony from representatives of Management Systems International (MSI) and the Government Accountability Office which have recently examined the management of the refuge system. While both reports make important contributions, they are in the words of one of the organizations nothing more than "A Snapshot in Time". Nevertheless, I look forward to hearing how MSI determined the ratings for the strategic outcome goals and whether the Fish and Wildlife Service agrees with these ratings and how they intend to improve them in the future.

Finally, during the past year, a number of witnesses have testified that the Bush Administration has financially shortchanged the refuge system. The most prominent critic was former Interior Secretary Bruce Babbitt who told us on October 9, 2007 that our nation's wildlife refuges are "reeling from years of fiscal starvation."

As President John Adams once said: "Facts are stubborn things." Here are the facts. During the Clinton Administration, \$1.67 billion was requested for the refuge system and Congress appropriated \$1.7 billion. By contrast, the Bush Administration has requested \$3.08 billion and Congress appropriated \$3.13 billion. In other words, during the past eight years the refuge system has enjoyed an increase of \$1.4 billion in requested funds and \$1.43 billion in appropriated dollars. Only in Washington, D. C., would an increase of \$180 million each year be considered "fiscal starvation"!

While there is no question that despite these additional funds, the refuge system has experienced some difficult days. Nevertheless, to suggest that the refuge system has been shortchanged or starved is factually incorrect and nothing more than empty political rhetoric.

Madam Chairwoman, I have enjoyed working with you during this Congress and I look forward to hearing the testimony from our witnesses.

Thank you, Madam Chairwoman.

Mr. WITTMAN. Gentlemen, I will begin. I will let anybody on the panel that is interested in answering this, probably somebody from the Wildlife Refuge System.

Can you tell me the number of permanent and total employees within the Refuge System and how many vacancies currently exist now within the System?

Mr. KURTH. I can't give you an accurate number of how many vacancies we have today. I would be happy to get that information to you. Our workforce is approximately 3,700 people. Again, I would be happy to give you the precise figure for the record.

Mr. WITTMAN. OK. That would be very, very helpful. Can you tell me how many law enforcement officers work within the System, and can you give me an idea about their role—how many of them are dual function employees; how many are full-time law enforcement officers—just to kind of get a bearing on—

Mr. KURTH. Sure. We have 217 full-time officers and 151 dual function officers. That is a total of 368 badges, if my math is correct.

Mr. WITTMAN. All right. According to Mr. Matson, he says that the Fish and Wildlife Service intends to further reduce the number of refuge managers, biologists and environmental educators and maintenance staff by 20 percent. Is that an accurate reflection of what the plan is?

Mr. KURTH. We had plans on how to deal with a flat and declining budget in the Refuge System station-by-station, where we would make cuts if need be.

With the appropriation from Fiscal Year 2008, we stabilized our workforce. If we can be successful in having appropriations that cover inflationary cost increase each year then we would not at this point in time need to eliminate any further staff.

Mr. WITTMAN. OK. All right. Thank you. Since the Service is likely to receive an increase of about \$70 million for the National Wildlife Refuge System for the current fiscal year and next fiscal year, can you tell me how many of the 350 lost refuge jobs would be refilled in the future? How much of that lost ground would you regain by the increase of the \$70 million?

Mr. KURTH. I guess I don't have anything that I am aware of that indicates that \$70 million increase is likely. I know people have been asking for that.

Mr. WITTMAN. Yes. Yes. There is \$35 million requested for this year and \$35 million for next year. So if that funding were to come through how would that affect the 350 jobs that remain unfilled?

Mr. KURTH. We would probably not precisely refill the jobs that were lost. What we would do is continue to implement our priorities.

I would think you would see us put an investment into law enforcement officers and wildlife biologists, two of the areas that we see from all of these reports that we are weak on. We would put them at the highest priority stations.

You know, a \$70 million budget increase would likely be able to replace all of those positions, that number of positions. We would hopefully align them with our highest priority needs. They would not be an identical mirror of what was there in the past.

Some of the efficiencies we have found through these tight times of having efficient complexes of refuges where we can share things like full-time officers are trends that we are going to continue to look at. If we do get additional resources, we are going to look to be as highly efficient as we possibly can where we would deploy those jobs.

Mr. WITTMAN. A question off in a little bit different direction. You know, the big issue around a lot of refuges are invasive species. I know just in Virginia dealing with Phragmites in some of the properties there along the coastline has become a major, major issue.

Can you give us an indication about how many acres in the System might be affected by invasive species and the backlog of projects to deal with these invasive species?

Mr. KURTH. You know, I don't want to give you a guesstimate. I can tell you that in the lower 48 states it is the issue that is most frequently cited by refuge managers as a critical natural resources concern.

We have a variety of types of invasive species—from some which are less aggressive that we can lower our priority on—to things like melaleuca in the Everglades, an Old World climbing fern that, if we don't do something immediately there, we can lose the entire value of that habitat. Not all invasive species are created equal, but it is certainly a top resource concern amongst our managers.

Mr. WITTMAN. OK. Just to get your thoughts on priorities for invasive species, do you agree with the conclusion that invasive species are collectively the single greatest threat to native plants, fish and wildlife, with the potential to degrade an entire ecosystem?

Mr. KURTH. I think it is certainly a very high priority, and I would agree with that assessment.

Mr. WITTMAN. OK. All right. Thank you very much. I appreciate it, Madam Chair.

Ms. BORDALLO. I thank the gentleman from Virginia, Mr. Wittman, and now I recognize the gentleman from Michigan, Mr. Kildee.

Mr. KILDEE. Thank you, Madam Chair.

Mr. Kurth, the Shiawassee National Wildlife Refuge is on the border of my district. Steve Kahl is the refuge manager. They have a great staff of people up there. I have had the opportunity of visiting it. They are understaffed, as probably other ones are also, but what bothers me is that the biological technician position has been vacant since 2005.

Michigan seems to be kind of a center of problems with invasive species, all types of invasive species. We were worried about the emerald ash borer in Michigan. It probably was introduced at a port here in Michigan on some material that came from Asia and is moving northward.

I know they are working with Michigan State University now, a land grant university, and they have probably found a natural enemy of the emerald ash borer. If that were to reach that far north, north of where I live, it would be devastating to that wildlife refuge. The number of ash trees is enormous.

When you look at vacancies do you look at particular need and find that perhaps there, particularly with Michigan State University within about a 45 minute drive from that area, that it would be helpful to have a biological technician working with the people at Michigan State to see how they can control that emerald ash borer, which could be very destructive to that refuge?

Mr. KURTH. There is no doubt that forest pests are a type of invasive species that we don't always talk about, and their effects, particularly in the eastern forest, are dramatic.

I don't know the specifics about the biological technician position at Shiawassee, but I think these reports have shown that we do leverage our resources very effectively with universities and other parties, and it is certainly something that I would be happy to look into how we can make sure that we effectively work with Michigan State University in order to look at the issue of Shiawassee Refuge and the ash borer because it is a very critical problem.

Mr. KILDEE. I would appreciate that because in visiting it I am really impressed with the sense of mission that the people who are there have. There is a real sense of mission there, a commitment. It is always like a vocation they have, and they are really concerned about maintaining the integrity of that refuge.

As I say, the greatest immediate danger right now, and there are many dangers, is the emerald ash borer. Since Michigan State is so close and is making some progress in trying to find a natural enemy, I would encourage, first of all, that you fill the position, but that requires of course Congress appropriating sufficient funds, but filling the position and also working with Michigan State to see whether we can do something to protect that refuge from this really invasive species.

Mr. KURTH. I am happy to look into it. I love Shiawassee Refuge. When I was stationed north of the bridge at Seney Refuge in the Upper Peninsula we used to collaborate frequently, and it is a wonderful resource for the folks there in Saginaw. We are happy to look into it.

Mr. KILDEE. You know, they do great work. I mentioned kind of almost a sense of vocation.

We get probably bombarded in Congress with mail and bulletins and various papers to read, but the one I always read is the one put out by that refuge. They do an excellent job. They keep on top of it and keep us informed, keep the public informed of what is going on there, what is available.

I think it is probably the only National Wildlife Refuge that I have visited, but if that spirit of vocation permeates the rest of your operation, you have a mighty mission yourself. I appreciate what you do with your limited resources. I thank you.

Mr. KURTH. I very much appreciate your kind words, sir. Thank you.

Mr. KILDEE. I yield back.

Ms. BORDALLO. I thank the gentleman from Michigan, Mr. Kildee.

I have a few questions that may lead to you, Mr. Kurth. You are in the hot seat here.

The MSI report determined that the Refuge System has been ineffective in protecting wilderness. In fact, the report notes that the

Service went so far as to publicly release a draft wilderness policy in 2001, but to date has never issued a final wilderness policy.

Mr. Kurth, why has the Service not developed a final wilderness policy for the Refuge System, and can we expect to see the Service release a final policy before the current Administration departs?

Could you be brief in your response?

Mr. KURTH. The policy has had points of contention. We finished our draft with a recommendation. Because it has been so long before we published a draft, we put it out for another round of public review and comment. I don't know—

Ms. BORDALLO. How long is that going to take?

Mr. KURTH. Well, the comment period would likely be 60 or 90 days. I don't know—that draft policy now is at a policy level in review with the lawyers—whether or not they are going to accept that recommendation or not.

Ms. BORDALLO. So what you are saying is that it will be the next Administration?

Mr. KURTH. The policy could be sent out in this Administration again for comment. It could be, if officials choose, finalized in this Administration.

We work very hard and very closely with our colleagues, with state fish and wildlife agencies and the Association of Fish and Wildlife Agencies to try and address their concerns, some of the concerns that Mr. Horn raised, so that we will have a wilderness policy that allows us to accomplish our conservation mission and protect the enduring resource of wilderness.

It is one of my professional areas of greatest interest. I moved here from the Arctic Refuge in Alaska, and we really would like to have an effective policy.

Ms. BORDALLO. Would you say then, Mr. Kurth, that sending it out again is going to be results, or will it just come back with the same contentious—

Mr. KURTH. I think that we can move a policy to completion. The areas where there have been some areas of disagreement I think we are very close on now.

Ms. BORDALLO. All right. The other one is more specifically in 2004. A Fish and Wildlife Service director's memo ordered all Alaska refuges to stop performing wilderness reviews as a part of their planning process. It is my understanding that this memo contradicts established refuge policy.

Is this memo still in effect today, and can you confirm that it is contrary to existing refuge policy? Can you please explain why this memo was issued in the first place?

Mr. KURTH. The memo is in place. Our planning policy does require wilderness reviews in development of comprehensive conservation plans. This is a policy directive that came after that policy, and the policy hasn't been formally amended.

This has been a contentious issue for a couple of decades from when we first started doing the first round of CCPs in Alaska in the mid 1980s where we didn't do wilderness reviews.

In the past Administration there was a policy decision that we would do them, and then that subsequently changed. I think what you see is it reflects policy differences in different Administrations.

Ms. BORDALLO. OK. Just for the record now, is the memo still in effect today?

Mr. KURTH. Yes.

Ms. BORDALLO. Can you confirm that it is contrary to existing policy?

Mr. KURTH. The memo provides additional policy and guidance to that which was in our planning chapter.

Ms. BORDALLO. So it is not contrary?

Mr. KURTH. No. The Director issued it as a policy directive. The chapter on comprehensive conservation planning has different language in it, but this is a subsequent direction from the Director of the Fish and Wildlife Service, so I think technically we should amend the policy language to conform with the more recent policy direction.

Ms. BORDALLO. All right. Another one. Now, Mr. Horn mentioned in his testimony that in the recent Arizona District Court decision regarding the Kofa Wildlife Refuge the sportsmen asserted that the National Wildlife Refuge System Improvement Act overrides any seemingly contradictory principles of the Wilderness Act. The court agreed rather that the Fish and Wildlife Service engage in a reasonable harmonization of the two statutes, controlling its actions on the land in question.

Is the Fish and Wildlife Service's position in accordance with this court decision that the wildlife conservation goals of the National Wildlife Refuges are not incompatible with the language of the Wilderness Act and that both should guide the Service's management of our refuges?

Mr. KURTH. Yes. The Wilderness Act and the Refuge System Administration Act are very compatible statutes. Our finest wildlife is on some of our wilderness areas in Alaska and other places.

It just requires us to be careful in crafting our stewardship in a way that complies with both of the laws, and they are not at all irreconcilable.

Ms. BORDALLO. Mr. Horn, could you comment on that?

Mr. HORN. Yes, Madam Chair. I would make two comments briefly.

One is that partially what the court recognized is express statutory language in the 1964 Wilderness Act which prescribes clearly that wilderness is a supplemental purpose whereas the primary purpose derives from the 1997 Refuge Act. It is that supplemental aspect of the Wilderness Act is what we wanted the court to recognize, and we believe they did.

I would say second on the wilderness policy question of 2004 the issue of wilderness reviews in Alaska is governed by specific provisions of the Alaska Lands Act adopted in 1980 that prescribed that there would be essentially one round and one round only of wilderness reviews, and that is the section found in Title XIII and also found in another provision of the statute called the no more clause.

So it would be my opinion that the Director's 2004 policy is consistent with the specific statutory provision of the Alaska Lands Act, whereas the prior wilderness policy was inconsistent with that statutory directive.

Ms. BORDALLO. Thank you. Thank you for that clarification.

Mr. Matson?

Mr. MATSON. In terms of Alaska, to answer your question, two of the four memos absolutely are in contradiction to the planning policy. There is no doubt about that.

In terms of the previous wilderness reviews, there has really been no adequate wilderness review to date in Alaska. ANILCA passed in 1980, followed by an Administration that was hostile to wilderness, followed by 12 years of Administrations that were hostile to wilderness.

So it is certainly reasonable to include a wilderness review. It is not designating wilderness. It is just reviewing lands that are eligible to wilderness. That is all this is requiring, and it is perfectly reasonable to include it in the plan.

Ms. BORDALLO. Thank you very much, Mr. Matson.

My time has expired here, and I would like to call on the gentleman from Michigan, Mr. Kildee, for further questions.

Mr. KILDEE. Thank you, Madam Chair.

Ms. Nazzaro, the Cooperative Alliance for Refuge Enhancement or CARE reports that the Refuge System has an existing \$3.5 million operations and maintenance budget backlog.

CARE recommends an annual operating budget of \$800 million to allow the Refuge System to address annual uncontrollable cost and to meet its operations and maintenance obligations.

Did GAO consider this factor in its analysis? Is this amount reasonable considering the needs?

Ms. NAZZARO. One of the concerns that was raised in our survey by refuge managers was the challenge of the backlog maintenance.

We do have a specific report right now that is being prepared by GAO dealing with backlog maintenance. That includes Federal land management agencies, and that should be out I believe in the October timeframe.

We did not specifically look at the extent to which Fish and Wildlife Service has a backlog maintenance or what is being done to address that, but rather just raised it as an additional challenge that they face.

Mr. KILDEE. Your GAO report found that annual Refuge System budgets for core activities fluctuated over the period of 2003 to 2007. The budget spiked in 2003, declined in subsequent years and then increased in 2007. More surprising, the nominal budget trend shows a relative increase in operating budgets.

Ms. Nazzaro, it is my understanding that the Refuge System experiences an annual increase in uncontrollable cost in the range of \$15 to \$20 million to cover increases in fuel cost, salaries and other matters. Did you examine this issue? How does this compare to your general inflationary indices you used in your report?

Ms. NAZZARO. We didn't specifically look at fuel costs and what percentage of their operating budget is absorbed through fuel cost, but that was one of the challenges that the agency tried to address in its regional workforce plan.

They were recognizing that the percentage of their budget that was being absorbed by salaries and benefits was growing significantly as a percentage of their budget compared to what they had for operating, maintenance and wildland fire, their core activities. So it was with that that they put in place and made these tough decisions as far as the workforce plans.

I mean, given its budgets, there are limits to what the Forest Service can do, and we felt that the workforce plans, as was echoed by the Fish and Wildlife Service, were viewed as a necessary step to restore that balance between salary and benefit costs, as well as the refuge operational costs.

You know, given that fact they are going to have to continue to make tough choices. We have raised a lot of challenges here today that the Service is facing. Given the fiscal constraints that the government is also facing, it seems unreasonable that there is going to be significant increases in budget in the future.

So the agency is going to continue to have to make these trade-offs, as does any other Federal agency. What we would suggest at this point is that the agency just continue to abide by sound management initiatives such as making sure that they have the information they need to make informed decisions. These are things that Congress could work also to help ensure that they do these things.

Another thing would be that they are pursuing the tools, the technologies and approaches that are going to ensure efficient and effective government, focusing more on the long-term payoffs that they are using appropriate management strategies and that their investment decisions are transparent so that the general public understands if there are changes to the refuges why they are made and that they are supported by sound information.

Mr. KILDEE. Do you agree then with Mr. Callihan's finding that despite nominal increases in funding, the actual purchasing power declined by, according to his figures, 11 percent over the same period?

Ms. NAZZARO. I don't have the figures in front of me, but, yes, in general we do say that when you factor in inflation that they didn't receive significant increases over time.

From 2002 to 2007 there was an increase in the budget of 4.3 percent, a decline of 2.3 percent from the peak year in 2003, which it was beefed up at that point because of their centennial.

Mr. KILDEE. Thank you very much, Ms. Nazzaro.

Ms. BORDALLO. I thank the gentleman from Michigan, Mr. Kildee.

I have a few more questions on personnel attrition and impacts. According to the GAO, the Refuge System has experienced a significant decline of 8.4 percent in the number of Federal employees working in the field over the period of 2002 to 2007, and even though some refuges and refuge complexes saw five percent increases in workforce numbers, three times as many refuges or refuge complexes lost five percent or more of their workforce.

Ms. Nazzaro, is it fair to expect the Refuge System to be able to deliver on all of its strategic goals when it is forced to work with so few employees?

Ms. NAZZARO. Well, when we looked at the assessment that MSI did which focused specifically on the strategic goals, we were in agreement with them generally that where there were strengths there were also limitations.

Now, two of the areas that they highlighted, and one we have talked extensively about today, was law enforcement. We didn't

look specifically at it, but that was raised by a number of individuals as an issue.

The other thing that we talked just briefly, and I think the Service actually focused on it, was the issue of invasive species. That was one of the key problems that were raised during the survey of refuge managers that invasives—I think it was a 55 percent response rate there; that it had increased at half the refuges. So that was a significant concern.

The other is habitat fragmentation, something we haven't talked about today, where you have to manage an environment for a species as a total ecosystem. There are issues now where these habitats are being fragmented, and it does impact on the species.

Can they address all of them? I think they can address all of their goals. It is just going to be a matter of prioritizing at which locations and where they have the most significant problem.

Ms. BORDALLO. So generally then, in answer to my question, it is yes?

Ms. NAZZARO. I would say they can address all their goals. Will they be able to do everything they want to do? No.

Ms. BORDALLO. All right. What are the implications for the System if the Fish and Wildlife Service by default is forced to shift even more refuges into refuge complexes?

Ms. NAZZARO. We didn't really assess the pros or cons of making such a shift. It does seem like they were able to do more with less by doing that, by shifting them into complexes.

As was noted, for example, with law enforcement officers, if you have a complex then you are reducing some of your overhead, certainly for administrative purposes as well.

So it would seem like it was a good strategy if you have a reduction in force how you are going to better manage more areas with less, but we did not assess the success or failure of that.

Ms. BORDALLO. Mr. Matson, could you comment on that?

Mr. MATSON. I think for a lot of refuges that are in close proximity, complexes make a lot of sense. I think they have gained a lot of efficiencies through complexing, but I imagine that we are probably complexed out.

I think we have probably gained all the efficiencies we can, and there are probably some complexes that are just too big. I mean, if you have refuges that are over 100 miles apart can you really efficiently maintain adequate coverage of those refuges? That is a question.

Ms. BORDALLO. All right. Thank you. Getting back to you, Ms. Nazzaro, what has been the effect of the workforce restructuring on the employees?

You know, there is always some kind of an effect when you do this. How has the morale been affected? Do you anticipate a higher rate of retirements? If so, how have these restructuring policies affected new employment recruitment?

Ms. NAZZARO. I specifically can't comment on the impacts on recruitment or on retirements because we didn't go down that line of questioning. We certainly did ask them to comment on it, and one regional manager certainly emphasized that there has been an emotional strain.

The regional workforce plans did result in a reduction of the workforce, and any time you have a reduction that is inherently difficult, and it is certainly painful for any affected staff.

Ms. BORDALLO. All right. Thank you.

Mr. Callihan, from your perspective?

Mr. CALLIHAN. I am sorry. The question again was on the workforce plan?

Ms. BORDALLO. OK. What has been the effect of the workforce restructuring on employees, the morale? Do you find a higher rate of retirements? How have these restructuring policies affected new employee recruitment?

Mr. CALLIHAN. You know, we didn't look specifically at that question. If I could go back, maybe this will shed some light on it, though, in terms of your previous question.

You know, in surveying the refuge managers, 77 percent indicated that they believed that the refuges are not meeting or only partially meeting their habitat objective goals, and I think——

Ms. BORDALLO. What was that percentage?

Mr. CALLIHAN. Seventy-seven percent——

Ms. BORDALLO. Seventy-seven percent.

Mr. CALLIHAN.—believe that their refuge is not meeting or is only partially meeting its habitat management goals.

I think some of our recommendations had to do with management and process, but clearly there is an insufficient level of inventory and monitoring and biologists on the refuge, and I think if it is maintained at current levels that there are going to be genuine limitations in terms of the level of achievement that can be expected.

Ms. BORDALLO. Thank you. I appreciate that information.

Mr. Kurth, would you like to comment on this?

Mr. KURTH. The years of downsizing and workforce planning were stressful on our Refuge System employees. I, though, am always astonished at how they keep their attitude and their dedication at such a high level.

I think Mr. Kildee's comments about the enthusiasm about the Shiawassee staff is really emblematic of our field staffs across the country. They become exceptionally frustrated when they see the resources that they are entrusted to take care of not get everything they need.

This profession is a way of life as much as it is a livelihood, and they are the most dedicated and passionate employees I have ever met, so——

Ms. BORDALLO. So you would say then overall, Mr. Kurth, that morale is good?

Mr. KURTH. I think that their morale and their professionalism is good, but it is certainly not as high as what it is when they are not faced with so many challenges.

It certainly has been affected by this, but they are resolute in their commitment to their job, and I couldn't be prouder of them.

Ms. BORDALLO. Thank you. I agree with you on that. I think when you love what you are doing, even though you are limited to some point, you will just continue to work. I notice that we work with a lot of volunteers in keeping these refuges open, so I understand that.

Mr. KURTH. The money gets them, but one of the things these reports pointed out that we are trying to work hard on is the paperwork and burdens that we put on them are an area where we have to improve and have to try and cut some of the red tape that goes into modern day refuge managers so they can focus their attention more precisely.

If we could do that for them, their morale would be a lot higher.

Ms. BORDALLO. That is right. I understand.

All right. As you know, CCPs are 15-year long-range planning documents that are intended to guide management decisionmaking on National Wildlife Refuges. All CCPs are supposed to consider the various factors affecting refuge resources and should provide policy guidance to address, mitigate or avoid any threats.

However, I understand that the overwhelming majority of CCPs completed to date, even recently completed CCPs, fail to consider perhaps the most pressing natural resource challenge of our time, and that is climate change.

Mr. Kurth, why do CCPs not substantially consider this most serious environmental challenge facing the planet, and what is the Refuge System doing to remedy this? Will the Administration be requesting additional budget and staff to address this critical planning need?

Mr. KURTH. There are several questions there. Frankly, the issue of climate change and how we deal with it has changed within the past two years in this Administration.

There has been a recognition over the last two years that we have to talk about how we can adapt in the face of a changing climate and mitigate its effects where we can, and so our newest CCPs are beginning to address climate change.

Our coastal refuges are using a tool called SLAMM, sea level assessment and marsh monitoring. We are starting to look at what is going to happen in coastal areas, but it is new and I think it is new to the conservation field. Admittedly, we were slow to incorporate those concerns in our CCPs, but I think now we have clear direction that that is an appropriate thing to do.

The issue of requesting additional funds in the future, I am not in a position to say that because we don't know what—

Ms. BORDALLO. We don't know what the future is going to be, right?

Mr. KURTH. What the future is going to hold and what the priorities will be in the next—but I think it is safe to say that everyone in the conservation community has a strong focus on the challenges that climate change presents us, and no one in the natural resource management field is of a mind that we can continue to do things as we always have without thinking about what adaptations we are going to have to consider.

Ms. BORDALLO. All right. Thank you.

I am going to ask all of the panelists now one question just with a yes or a no, if you don't mind. In the opinion of the panel, will existing CCPs that do not consider climate change still be relevant and useful to refuge managers well into the future?

We will begin with you.

Ms. NAZZARO. I would have to say no because you would want to consider all factors.

Ms. BORDALLO. Next?

Mr. CALLIHAN. I would say mostly no, but it will vary considerably from refuge to refuge I would think, depending on the issues.

Ms. BORDALLO. Mr. Kurth?

Mr. KURTH. That one word answer is tough. The answer is yes, they will be of value because they will have many things about how to deal with the public and have hunting programs, but no in that there is one glaring omission there that we need to deal with because they are very broad plans.

Ms. BORDALLO. That is an interesting answer, Mr. Kurth.

Mr. Matson?

Mr. MATSON. No.

Ms. BORDALLO. Mr. Horn?

Mr. HORN. I think I agree with Mr. Kurth simply because, yes, they will be simply because most of the changes associated with climate change within the 10 to 15 year window are likely to be fairly minimal and can be addressed in a second round.

Ms. BORDALLO. All right. I want to thank you, and now I have my next range of questions here, a few more.

I have just one here for Mr. Horn. What would you consider to be some of the easiest or least expensive available remedies to address the many shortcomings regarding appraisals in land acquisitions described in the MSI report?

Mr. HORN. I think it is fairly simple. Return the appraisal function to the Fish and Wildlife Service and terminate the consolidation that the Department put in place four or five years ago.

I personally think the Department got stampeded in response or in reaction to some appraisal issues that occurred involving BLM in Utah, and I think the cure turned out to be worse than the disease.

It is not only adversely impacting the real estate functions of the Service. It is adversely impacting the real estate functions of BLM and the Park Service as well.

Ms. BORDALLO. Very good. Let me hear from you, Mr. Matson.

Mr. MATSON. I absolutely concur with Mr. Horn.

Ms. BORDALLO. Mr. Kurth?

Mr. KURTH. I believe if I concurred with Mr. Horn I would be at a policy variance with the Department, so I don't think I will do that.

Ms. BORDALLO. All right. Mr. Callihan?

Mr. CALLIHAN. Yes. Our report found that the current DOI managed land appraisal process is ineffective and represents a step backwards in the Refuge System's ability to purchase land and easements from willing sellers. The process simply doesn't work.

Ms. BORDALLO. Ms. Nazzaro?

Ms. NAZZARO. We have not looked at the effectiveness in the Fish and Wildlife Service, but I would say that we would disagree to disband the current appraisal system process because it did address one of the major concerns that GAO had, and that was that there was a lack of independence.

To have the appraisers work in the same office of those that were trying to acquire the lands, we did not feel there was an arm's length break there, and we actually strongly suggested a different

construct of which by consolidating it within the Department of Interior did solve that problem.

We have looked at other bureaus within the Department, though, and we do recognize that there are problems with the timeliness of the services they are delivering so I wouldn't say it is totally fixed—there are still some improvements to be had—but I wouldn't totally throw the baby out with the bath water.

Ms. BORDALLO. Thank you.

Mr. Matson, you advocate increasing land acquisition funding. How do you reconcile buying more land when the Fish and Wildlife Service can't seem to take care of what it currently has?

Mr. MATSON. That is a great persistent question and has been persistent over the last 10 years.

I think what people don't understand is a refuge is established with a boundary and the vast majority of acquisitions are in that boundary, so essentially it is acquiring in-holdings in refuges which makes management more efficient.

It is reducing those threats to the refuge that are causing management headaches. It is purchasing in-holdings that are causing management headaches. So I think the vast majority of acquisitions, I think there are probably billions of dollars that could be spent just on our existing refuge system that would make management more efficient, so I think there is a huge need.

In fact, 6,000 acres of open space are lost every day. I think during the course of this hearing we have lost 500 acres of open space. It is a crisis.

You know, the appraisal process is one barrier to that. Basically the cynic in me says that the Administration did that on purpose to completely foil any kind of land acquisition because the Federal government cannot acquire land on its own, right now, with a year-and-a-half delay in this process, with these deadlines. No willing seller is going to wait that long.

This last year the Administration requested two projects in a pool of hundreds of eligible projects for funding. It is a big problem.

Ms. BORDALLO. Thank you. Thank you very much, Mr. Matson.

Mr. Kurth, one of the principal responsibilities assigned to the Secretary of the Interior under the Refuge Administration Act is to assist in the maintenance of adequate water quantity and water quality to fulfill the mission of the system and the purposes of each refuge and to acquire water rights that are needed for refuge purposes.

It is more than a little troubling then to read that MSI was unable to evaluate whether the Refuge System was meeting its strategic goal of providing adequate water because the Fish and Wildlife Service does not currently operate a well-defined and structured water resources program.

Considering that it has been over 10 years since the Refuge Improvement Act was passed, why has the Service not developed such a program?

Mr. KURTH. I think Director Hall has consistently said that he believes water resources are going to be the conservation challenge of the twenty-first century. We take them seriously.

The way to deal with water issues is so variable because of the complexities of water law from one part of the country to another

that we have largely taken a regionalized approach. In our western regions we do have staffs that have a good handle on water rights issues and where we need to acquire more water rights.

It is a completely different legal framework in the east, and, quite frankly, these issues are emerging and we don't really have a good handle on the future of water issues in the eastern United States.

I think it is fair to say, though, that are databases to roll all this up don't exist, that they are decentralized, and so that made it very much more difficult for MSI to evaluate us there.

That strategic goal also, though, includes things like our ability to deal with environmental contaminants and air quality, and while we think MSI did a good job in this evaluation that is one area where we told them that we actually didn't think that their review was effective as finding some sources of existing databases that exist in other programs and other places.

So we believe in the issues of air quality and our handling of contaminant issues that data were available, and it was probably not the strongest part of the evaluation, in my opinion.

Ms. BORDALLO. Mr. Kurth, I certainly understand the challenges involved, but 10 years?

Mr. KURTH. Well, in that 10 years we have taken any number of actions throughout the country dealing with critical water issues.

Our liability, in my mind, is that we aren't doing the job that we need to do to have a centralized system that helps us understand the priorities. We have recently done a data call to all of our field stations asking them to give us their priorities in water needs, and it is not just purchasing water rights. It is projects to make sure we don't have water loss in our irrigation systems and our water management systems.

It is highly complex. We don't have the hydrologists and things that we probably need to do a better job.

Ms. BORDALLO. Well, I certainly feel that more progress should have been made in those 10 years.

I would like to hear from Mr. Callihan since you are the—

Mr. CALLIHAN. On the water rights on the water program issues.

Ms. BORDALLO. Yes. Yes.

Mr. CALLIHAN. Yes. I mean, we came across a pretty intense level of activity in regard to water quality and water rights in the western regions, particularly out of the Sacramento office and in the southwest.

The Refuge System I think has been mentioned as a very decentralized organization where the different regions are running their own programs. Sometimes they are similar between the regions. Sometimes they are not so similar.

I think with the water program where it has operated it has been highly decentralized, as has been stated, but also we felt that there would be a benefit to having more policy, more program direction in place, more staffing.

Of course, this gets back to the tension of more things need to be done but there are fewer people to do them, so that I imagine has also had an impact on this program.

Ms. BORDALLO. Thank you very much for the answer to the question.

I know it has been a long morning, and I want to thank all the witnesses for their participation in the hearing today—Ms. Nazzaro, Mr. Callihan, Mr. Kurth, Mr. Matson and Mr. Horn. Members of the Subcommittee may have some additional questions for the witnesses, and we will ask you to respond to these in writing.

I think some of you did say that you didn't have answers to some of our questions and you would prepare the reports and have it to us. The hearing record will be held open for 10 days for any of these responses.

And if there is no further business before the Subcommittee, the Chairwoman again thanks the Members of the Subcommittee and our witnesses for their participation here this morning, and the Subcommittee stands adjourned.

[Whereupon, at 12:02 p.m., the Subcommittee was adjourned.]

